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(54) Title: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING SAME, AND METHODS OF

(57) Abstract: The present invention relates to clusters of plant genes that are regulated in response to one or more stress conditions. The present invention also relates to isolated plant stress-regulated genes, including portions thereof comprising a coding sequence or a regulatory element, and to consensus sequences comprising a plant stress-regulated regulatory element. In addition, the invention relates to a recombinant polynucleotide, which includes a plant stress-regulated gene, or functional portion thereof, operatively linked to a heterologous mucleotide sequence. The invention further relates to a transgenic plant, which contains a plant stress-regulated gene or functional portion thereof that was introduced into a progenitor cell of the plant. In addition, the invention relates to methods of using a plant stress-regulated gene to confer upon a plant a selective advantage to a stress condition. The invention also relates to a method of identifying an agent that modulates the activity of a plant stress-regulated regulatory element.



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STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING SAME, AND METHODS OF USE

BACKGROUND OF THE INVENTION FIELD OF THE INVENTION

The present invention relates generally to plant genes, the expression of which are regulated in response to stress, and more specifically to the gene regulatory elements involved in a stress-induced response in plants, to uses of the coding sequences and regulatory elements of such plant stress-regulated genes, and to transgenic plants genetically modified to express such a coding sequence or to express a heterologous polynucleotide from such a regulatory element.

BACKGROUND INFORMATION

Microarray technology is a powerful tool that can be used to identify the presence and level of expression of a large number of polynucleotides in a single assay. A microarray is formed by linking a large number of discrete polynucleotide sequences, for example, a population of polynucleotides representative of a genome of an organism, to a solid support such as a microchip, glass slide, or the like, in a defined pattern. By contacting the microarray with a nucleic acid sample obtained from a cell of interest, and detecting those polynucleotides expressed in the cell can hybridize specifically to complementary sequences on the chip, the pattern formed by the hybridizing polynucleotides allows the identification of clusters of genes that are expressed in the cell. Furthermore, where each polynucleotide linked to the solid support is known, the identity of the hybridizing sequences from the nucleic acid sample can be identified.

A strength of microarray technology is that it allows the identification of differential gene expression simply by comparing patterns of hybridization. For example, by comparing the hybridization pattern of nucleic acid molecules obtained from cells of an individual suffering from a disease with the nucleic acids obtained from the corresponding cells of a healthy individual, genes that are differentially expressed can be identified. The identification of such differentially expressed genes

provides a means to identify new genes, and can provide insight as to the etiology of a disease.

Microarray technology has been widely used to identify patterns of gene expression associated with particular stages of development or of disease conditions in animal model systems, and is being applied to the identification of specific patterns of gene expression in humans. The recent availability of information for the genomes of plants provides a means to adapt microarray technology to the study of plant gene expression.

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Plants and plant products provide the primary sustenance, either directly or indirectly, for all animal life, including humans. For the majority of the world's human population and for many animals, plants and plant products provide the sole source of nutrition. As the world population increases, the best hope to prevent widespread famine is to increase the quantity and improve the quality of food crops, and to make the crops available to the regions of the world most in need of food.

Throughout history, a continual effort has been made to increase the yield and nutritious value of food crops. For centuries, plants having desirable characteristics such as greater resistance to drought conditions or increased size of fruit were crossbred and progeny plants exhibiting the desired characteristics were selected and used to produce seed or cuttings for propagation. Using such classical genetic methods, plants having, for example, greater disease resistance, increased yield, and better flavor have been obtained. The identification of plant genes involved in conferring a selective advantage on the plant to an environmental challenge would facilitate the generation and yield of plants, thereby increasing the available food supply to an increasing world population. The involvement of these genes in a single organism to responses to multiple stress conditions, however, remains unknown. Thus, a need exists to identify plant genes and polynucleotides that are involved in modulating the response of a plant to changing environmental conditions. The present invention satisfies this need and provides additional advantages.

SUMMARY OF THE INVENTION

The present invention relates to clusters of genes that are regulated in response to a stress condition in plants. Such clusters include, for example, plant polynucleotides

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whose expression is altered in response to two or more different stress conditions; and plant polynucleotides the expression of which are altered in response to one stress condition, but not to others. The identification of such clusters, using microarray technology, has allowed the identification of plant stress-regulated genes in Arabidopsis thaliana (see Tables 1 and 2); and homologs and orthologs thereof in other plant species (see Table 32). Thus, the invention provides isolated polynucleotide portions of Arabidopsis plant stress-regulated genes, and homologs and orthologs thereof; variants of such sequences, and polynucleotides encoding substantially similar plant stress-regulated polypeptides expressed therefrom. Such sequences include, for example, sequences encoding transcription factors; enzymes, including kinases; and structural proteins, including channel proteins (see Tables 29-31). Accordingly, the present invention also relates to an isolated polynucleotide comprising all or a portion of a plant stress-regulated gene, and to polynucleotide portions thereof, including a coding region (open reading frame), which encodes all or a portion of a stressregulated polypeptide, for example, as set forth in SEQ ID NOS:1-2703; and a regulatory element involved in regulating the response of the plant to a stress condition such exposure to an abnormal level of salt, osmotic pressure, temperature or any combination thereof, for example, as set forth in SEQ ID NOS:2704-5379.

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The present invention also relates to a recombinant polynucleotide, which contains a nucleotide sequence of a plant stress-regulated gene or functional portion thereof operatively linked to a heterologous nucleotide sequence. In one embodiment, the recombinant polynucleotide comprises a plant stress-regulated gene regulatory element operatively linked to a heterologous nucleotide sequence, which is not regulated by the regulatory element in a naturally occurring plant. The heterologous nucleotide sequence, when expressed from the regulatory element, can confer a desirable phenotype to a plant cell containing the recombinant polynucleotide. In another embodiment, the recombinant polynucleotide comprises a coding region, or portion thereof, of a plant stress-regulated gene operatively linked to a heterologous promoter. The heterologous promoter provides a means to express an encoded stress-regulated polypeptide constitutively, or in a tissue-specific or phase-specific manner.

Accordingly, in one aspect, the present invention provides an isolated polynucleotide comprising a nucleotide sequence of a plant gene that hybridizes under

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stringent conditions, preferably high stringency conditions, to any one of SEQ ID NOS:1-5379 (see Tables 1 and 2), including to a coding region (SEQ ID NOS:1-2703) or a regulatory region, which can alter transcription of an operatively linked nucleic acid sequence in response to an abiotic stress (SEQ ID NOS:2704-5379; see Table 2), or to a complement thereof. Additional aspects provide sequences that hybridize under stringent conditions, preferably high stringency conditions, to the complements of SEQ ID NO 1-1261 (cold responsive genes; Tables 3-6), SEQ ID NOS:2227-2427 (saline responsive genes; Tables 7-10), SEQ ID NOS:2428-2585 (osmotic responsive genes; Tables 11-14), SEQ ID NOS:1699-1969 (cold and osmotic responsive genes; Tables 15-17), SEQ ID NOS:1970-2226 (cold and saline responsive genes; Tables 18-20), SEQ ID NOS:2586-2703 (osmotic and saline responsive genes; Tables 21-23), and SEQ ID NOS:1262-1698(cold, osmotic and saline responsive genes; Tables 24-26), and which can comprise regulatory regions that can alter transcription in response to cold stress, osmotic stress, saline stress, or combinations thereof (SEQ ID NOS:2704-5379; see

Table 2). Also provided are nucleotide sequences complementary thereto, and

expression cassettes, plants and seeds comprising any of the above isolated sequences.

In another aspect, the present invention provides an isolated polynucleotide comprising a plant nucleotide sequence that hybridizes under stringent conditions, preferably high stringency conditions, to the complement of any one of SEQ ID NOS:1-2703 (Table 1), including to a coding region thereof (SEQ ID NOS:2704-5379), wherein expression of said coding region is altered in response to an abiotic stress. Additional aspects provide sequences that hybridize under high stringency conditions to the complements of SEQ ID NO 1-1261 (cold responsive genes; Tables 3-6), SEQ ID NOS:2227-2427 (saline responsive genes; Tables 7-10), SEQ ID NOS:2428-2585 (osmotic responsive genes; Tables 11-14), SEQ ID NOS:1699-1969 (cold and osmotic responsive genes; Tables 15-17), SEQ ID NOS:1970-2226 (cold and saline responsive genes; Tables 21-23), and SEQ ID NOS:1262-1698(cold, osmotic and saline responsive genes; Tables 24-26), and which can comprise a coding region whose transcription is altered in response to cold stress, osmotic stress, saline stress, or a combination thereof. Also provided are nucleotide

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sequences complementary thereto, and expression cassettes, plants and seeds comprising any of the above sequences.

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The invention further relates to a method of producing a transgenic plant, which comprises at least one plant cell that exhibits altered responsiveness to a stress condition. In one embodiment, the method can be performed by introducing a polynucleotide portion of plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cell to a stress condition.

The polynucleotide portion of the plant stress-regulated gene can encode a stress-regulated polypeptide or functional peptide portion thereof (see SEQ ID NOS:1-2703), wherein expression of the stress-regulated polypeptide or functional peptide portion thereof either increases the stress tolerance of the transgenic plant, or decreases the stress tolerance of the transgenic plant. The polynucleotide portion of the plant stress-regulated gene encoding the stress-regulated polypeptide or functional peptide portion thereof can be operatively linked to a heterologous promoter. The polynucleotide portion of the plant stress-regulated gene also can comprise a stressregulated gene regulatory element (see SEQ ID NOS:2704-5379). The stressregulated gene regulatory element can integrate into the plant cell genome in a sitespecific manner, whereupon it can be operatively linked to a heterologous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element; or can be a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stressregulated gene to the stress condition.

In one aspect, the invention provides a method for producing a transgenic plant by introducing into at least one plant cell a recombinant nucleic acid construct comprising i) all or a portion of any one of SEQ ID NOS:1-5379; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to all or a portion of the complement of any one of SEQ ID NOS:1-2703; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to abiotic stress, and that hybridizes under conditions of

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high stringency to the complement of any one of SEQ ID NOS:2704-5379; iv) a polynucleotide having at least 90% sequence identity with any one of SEQ ID NO:1-5379; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a nucleotide sequence that alters transcription of an operatively linked coding region in response to abiotic stress; and regenerating a plant from the at least one plant cell.

Another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:1-1261 or 2704-3955; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1-1261; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to cold stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2704-3955; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1-1261 or 2704-3955; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to cold stress; and regenerating a plant from the at least one plant cell.

In another aspect, the invention provides a method for producing a transgenic plant by introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2428-2585 or 5108-5263; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2428-2585; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to osmotic stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:5108-5263; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:2428-2585 or 5108-5263; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the

sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to osmotic stress; and regenerating a plant from the at least one plant cell.

Still another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2227-2427 or 4910-5107; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2227-2427; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2227-2427; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:4910-5107; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to saline stress; and regenerating a plant from the at least one plant cell.

Yet another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:1699-1969 or 4389-4654; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1699-1969; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold and osmotic stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:4389-4654; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1699-1969 or 4389-4654; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold and osmotic stress; and regenerating a plant from the at least one plant cell.

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Yet another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:1970-2226 or 4655-4909; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1970-2226; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:4655-4909; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1970-2226 or 4655-4909; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold and saline stress; and regenerating a plant from the at least one plant cell.

A further aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct comprising i) any one of SEQ ID NOS:2586-2703 or 5264-5379; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:2586-2703; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of osmotic and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS: 5264-5379; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:2586-2703 or 5264-5379; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv), wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of osmotic and saline stress; and regenerating a plant from the at least one plant cell.

Another aspect provides a method for producing a transgenic plant comprising introducing into at least one plant cell a recombinant nucleic acid construct

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comprising i) any one of SEQ ID NOS:1262-1698 or 3956-4388; ii) a polynucleotide comprising a coding region that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:1262-1698; iii) a polynucleotide comprising a sequence that alters transcription of an operatively linked coding region in response to a combination of cold, osmotic and saline stress that hybridizes under conditions of high stringency to the complement of any one of SEQ ID NOS:3956-4388; iv) a polynucleotide that has at least 90% sequence identity with any one of SEQ ID NOS:1262-1698 or 3956-4388; v) a fragment of any one of the sequences of iv), wherein the fragment comprises a coding region; or vi) a fragment of any one of the sequences of iv) wherein the fragment comprises a sequence or region that alters transcription of an operatively linked coding region in response to a combination of cold, osmotic and saline stress; and regenerating a plant from the at least one plant cell. Further aspects include plants and uniform populations of plants made by the above methods as well as seeds and progeny from such plants.

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In another embodiment, a transgene introduced into a plant cell according to a method of the invention can encode a polypeptide that regulates expression from an endogenous plant stress-regulated gene. Such a polypeptide can be, for example, a recombinantly produced polypeptide comprising a zinc finger domain, which is specific for the regulatory element, and an effector domain, which can be a repressor domain or an activator domain. The polynucleotide encoding the recombinant polypeptide can be operatively linked to and expressed from a constitutively active, inducible or tissue specific or phase specific regulatory element. Expression of the recombinant polypeptide from a plant stress-regulated promoter as disclosed herein can be particularly advantageous in that the polypeptide can be coordinately expressed with the endogenous plant stress-regulated genes upon exposure to a stress condition. The invention also provides transgenic plants produced by a method as disclosed, as well as to a plant cell obtained from such transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition; a seed produced by the transgenic plant; and a cDNA or genomic DNA library prepared from the transgenic plant, or from a plant cell from said transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition.

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In one aspect, the invention provides an isolated nucleic acid molecule comprising a nucleotide sequence substantially similar to a sequence of any one of SEQ ID NOS:2704-5379, which can alter transcription of an operatively linked polynucleotide in a plant cell in response to an abiotic stress. Additional aspects of the invention provide isolated polynucleotides, including, for example, sequences 5 substantially similar to any of SEQ ID NOS:2704-3955, which can alter transcription of an operatively linked polynucleotide in response to a cold stress; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:5108-5263, which can alter transcription of an operatively linked polynucleotide in response to an osmotic stress; isolated polynucleotides substantially similar to a 10 sequence of any of SEQ ID NOS:4910-5107, which can alter transcription of an operatively linked polynucleotide in response to a saline stress; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:4389-4654, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold and osmotic stresses; isolated polynucleotides 15 substantially similar to a sequence of any of SEQ ID NOS:4655-4909, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold and saline stresses; isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:5264-5379, which can alter transcription of an operatively linked polynucleotide in response to a combination of osmotic and saline stresses; and 20 isolated polynucleotides substantially similar to a sequence of any of SEQ ID NOS:3956-4388, which can alter transcription of an operatively linked polynucleotide in response to a combination of cold, osmotic and saline stresses.

Related aspects of the invention provide an isolated nucleotide sequences that can alter transcription of an operatively linked polynucleotide in response to an abiotic stress, and that hybridize under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:2704-5379. Additional aspects provide an isolated nucleotide sequence that can alter transcription of an operatively linked polynucleotide in response to cold stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:2704-3955; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to osmotic stress, and that

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hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:5108-5263; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4910-5107; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold and osmotic stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4389-4654; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:4655-4909; a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to an combination of osmotic and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:5264-5379; and a nucleotide sequence that alters transcription of an operatively linked polynucleotide in response to a combination of cold, osmotic and saline stress, and that hybridizes under stringent conditions, preferably highly stringent conditions, to the complement of any one of SEQ ID NOS:3956-4388.

Further aspects provide an expression cassette comprising as operatively linked components any of the above isolated nucleic acid sequences that alter transcription, a coding region, and a termination sequence. Also provided are host cells and seeds comprising such expression cassettes, plants containing such host cells and seeds and progeny of plants containing said host cells. In related aspects, the coding region of the expression cassettes comprise sequences encoding marker proteins and sequences involved in gene silencing such as antisense sequences, double stranded RNAi sequences, a triplexing agent, and sequences comprising dominant negative mutations. In additional related aspects, the coding regions comprise sequences encoding polypeptides that alter the response of a plant to an abiotic stress.

The present invention also relates to a method of modulating the responsiveness of a plant cell to a stress condition. Such a method can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated genes

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described herein into the plant cell, thereby modulating the responsiveness of the plant cell to a stress condition. Such a method can result in the responsiveness of the plant cell being increased upon exposure to the stress condition, which, in turn, can result in increased or decreased tolerance of the plant cell to a stress condition; or can result in the responsiveness of the plant cell to the stress condition being decreased, which, in turn, can result in increased or decreased tolerance of the plant cell to a stress condition. In one embodiment, the polynucleotide portion of the plant stressregulated gene can integrate into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition. In another embodiment, the polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof, and can be operatively linked to a heterologous promoter. The polynucleotide portion of the plant stress-regulated gene also can contain a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts (knocks-out) an endogenous plant stress-regulated sequence, thereby modulating the responsiveness of the plant cell to the stress condition. Depending on whether the knocked-out gene encodes an adaptive or a maladaptive stress-regulated polypeptide, the responsiveness of the plant will be modulated accordingly. In still another embodiment, the polynucleotide portion of the plant stress-regulated gene can comprise a stress-regulated regulatory element, which can be operatively linked to a heterologous nucleotide sequence, the expression of which can modulate the responsiveness of the plant cell to a stress condition. Such a heterologous nucleotide sequence can encode, for example, a stress-inducible transcription factor such as DREB1A. The heterologous nucleotide sequence also can encode a polynucleotide that is specific for a plant stress-regulated gene, for example, an antisense molecule, an RNAi molecule, a ribozyme, and a triplexing agent, any of which, upon expression in the plant cell, reduces or inhibits expression of a stressregulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant cell to a stress condition, for example, an abnormal level of cold, osmotic pressure, and salinity. Accordingly, the invention also relates to a plant cell obtained by such a method, and to a plant comprising such a plant cell.

The present invention also relates to a method of expressing a heterologous nucleotide sequence in a plant cell. Such a method can be performed, for example, by

introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, whereby, upon exposure of the plant cell to a stress condition, the heterologous nucleotide sequence is expressed in the plant cell. In a preferred embodiment, the stress regulated element is any of the sequences described herein that are capable of altering transcription of an operatively linked sequence in response to an abiotic stress, for example, SEQ ID NOS:2704-5379. The heterologous nucleotide sequence can encode a selectable marker, a diagnostic marker, or a polypeptide that confers a desirable trait upon the plant cell, for example, a polypeptide that improves the nutritional value, digestibility or ornamental value of the plant cell, or a plant comprising the plant cell.

The present invention further relates to a method of modulating the activity of a biological pathway in a plant cell, wherein the pathway involves a stress-regulated polypeptide or a non-protein regulatory molecule. Such a method can be performed by introducing a polynucleotide portion of a plant stress-regulated gene, or a polynucleotide derived therefrom, for example a ribozyme derived from a nucleotide sequence as set forth in any of SEQ ID NOS:1-2703, into the plant cell, thereby modulating the activity of the biological pathway. The method can be performed with respect to a pathway involving any of the stress-regulated polypeptides as disclosed herein or encoded by the polynucleotides disclosed herein, as well as using homologs or orthologs thereof.

The present invention also relates to a method of identifying a polynucleotide that modulates a stress response in a plant cell. In one embodiment the method comprises determining gene expression in a plant exposed to at least one stress to produce an expression profile and identifying sequences whose expression is altered at least two fold compared to plants not exposed to the stress. Such an expression profile can be obtained, for example, by contacting an array of probes representative of a plant cell genome with nucleic acid molecules expressed in a plant cell exposed to the stress; and detecting one or more nucleic acid molecules expressed at a level different from a level of expression in the absence of the stress. The method can further comprise introducing the differentially expressed nucleic acid molecule into a plant cell; and detecting a modulated response of the genetically modified plant cell to a stress, thereby identifying a polynucleotide that modulates a stress response in a

plant cell. The stress can be any stress, for example, an abiotic stress such as exposure to an abnormal level of cold, osmotic pressure, and salinity. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with probe having sufficient complementarity, for example, under stringent hybridization conditions. Expression of the nucleic acid molecule can increase or decrease the tolerance of the plant cell to the stress, and the nucleic acid molecule can be expressed at a level that is less than or greater than the level of expression in the absence of the stress.

The present invention additionally relates to a method of identifying a stress condition to which a plant cell was exposed by comparing an expression profile from 10 a test plant suspected of having been exposed to at least one stress condition to an expression profile obtained from a reference plant, preferably of the same species, which has been exposed to the suspected stress condition. Such a method can be performed, for example, by contacting nucleic acid molecules expressed in the test 15 plant cell with an array of probes representative of the plant cell genome; detecting a profile of expressed nucleic acid molecules characteristic of a stress response, and comparing the expression pattern in the test plant to the expression pattern obtained from a reference plant thereby identifying the stress condition to which the plant cell was exposed. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with probes having sufficient 20 complementarity, for example, under stringent hybridization conditions. The profile can be characteristic of exposure to a single stress condition, for example, an abnormal level of cold, osmotic pressure, or salinity, or can be characteristic of exposure to more than one stress condition, for example, cold, increased osmotic 25 pressure and increased salinity. In one embodiment, the nucleotide sequence of a gene whose expression is detected is selected from a polynucleotide comprising any of SEQ ID NOS:1-2703. In further embodiments, the nucleotide sequence of a gene that is expressed in response a particular stress or combination of stresses can comprise a polynucleotide expressed in response to cold stress (SEO ID 30 NOS:1-1261), osmotic stress (SEQ ID NOS:2428-2585), saline (salt) stress (SEQ ID NOS:2227-2427), a combination of cold and osmotic stress (SEQ ID

NOS:1699-1969), a combination of saline and osmotic stress (SEQ ID NOS:1970-

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2226), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703), or a combination of cold, osmotic and saline stress (SEQ ID NOS:1262-1698).

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The present invention further relates to a transgenic plant, which contains a nucleic acid construct comprising a polynucleotide portion of plant stress-regulated polynucleotide. In one embodiment, the transgenic plant exhibits altered responsiveness to a stress condition as compared to a corresponding reference plant not containing the construct. Such a transgenic plant can contain, for example, a construct that disrupts an endogenous stress-regulated gene in the plant, thereby reducing or inhibiting expression of the gene in response to a stress condition. Such a knock-out can increase or decrease tolerance of the plant to a stress condition. The transgene also can comprise a coding sequence of a plant stress-regulated gene, which can be operatively linked to a heterologous regulatory element such as a constitutively active regulatory element, an regulated regulatory element, a tissues specific or phase specific regulatory element, or the like. In another embodiment, the transgenic plant contains a nucleic acid construct comprising a plant stress-regulated regulatory element, which can be operatively linked to a heterologous nucleotide sequence that can encode a polypeptide. Expression of the heterologous polypeptide can confer a desirable characteristic on the plant, for example, can improve the nutritional or ornamental value of the transgenic plant. In still another embodiment, the transgenic plant contains multiple nucleic acid constructs, which can be multiple copies of the same construct, or can be two or more different constructs.

The present invention also relates to a plant stress-regulated regulatory element, which is obtained from a plant stress-regulated polynucleotide disclosed herein for example any of SEQ ID NOS:2704-5379; a homolog or ortholog thereof. The invention also provides a method of identifying an agent, for example a transcription factor, that specifically binds to or activates a plant stress-regulated regulatory element. Such a method can be performed, for example, by contacting the regulatory element with a plant cell extract, and identifying polypeptides that specifically bind to the regulatory element. Confirmation that the specifically binding polypeptide is a transcription factor can be demonstrated using, for example, the stress-regulated regulatory element operably linked to a reporter gene, and detecting expression of the reporter gene. Control constructs comprising a regulatory element, other than a plant stress-regulated regulatory element, operatively linked to a reporter molecule can be used to confirm

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that the transcription factor is specific for the plant stress-regulated regulatory element. A polynucleotide encoding such a transcription factor also can be obtained.

The present invention also relates to a method of using a polynucleotide portion of a plant stress-regulated gene to confer a selective advantage on a plant cell. In one embodiment, such a method is performed by introducing a plant stressregulated regulatory element into a plant cell such as those described herein, wherein, upon exposure of the plant cell to a stress condition to which the regulatory element is responsive, a nucleotide sequence operatively linked to the regulatory element is expressed, thereby conferring a selective advantage to plant cell. The operatively linked nucleotide sequence can be, for example, a transcription factor, the expression of which induces the further expression of polynucleotides involved in a stress response, thereby enhancing the response of a plant to the stress condition. In another embodiment, a coding sequence of a plant stress-regulated gene as disclosed herein is introduced into the cell, thereby providing the plant with a selective advantage in response to a stress condition. In still another embodiment, the method results in the knock-out of a plant stress-regulated gene as disclosed herein in a first population of plants, thereby providing a selective advantage to a stress condition in a second population of plants.

The invention further relates to a method of identifying an agent that modulates the activity of a stress-regulated regulatory element of a plant. In a particular embodiment, is provided a method for identifying an agent that alters the activity of an abiotic stress responsive regulatory element comprising contacting the agent or a composition containing an agent to be tested with at least one abiotic stress responsive regulatory element, preferably selected from the group consisting of SEQ ID NOS:2704-5379 (see Table 2), and determining the effect of the agent on the ability of the regulatory sequence to regulate transcription. In further embodiments, the regulatory elements are associated with particular stresses or combination of stresses such as cold stress (SEQ ID NOS:2704-3955), osmotic stress (SEQ ID NOS:5108-5263), saline stress (SEQ ID NOS:4910-5107), a combination of cold and osmotic stress (SEQ ID NOS:4389-4654), a combination of cold and saline stress (SEQ ID NOS:4655-4909), a combination of osmotic and saline stress (SEQ ID NOS:5264-5379), or a combination of cold, osmotic and saline stress (SEQ ID

17

NOS:3956-4388). In one embodiment, the regulatory element can be operatively linked to a heterologous polynucleotide encoding a reporter molecule, and an agent that modulates the activity of the stress-regulated regulatory element can be identified by detecting a change in expression of the reporter molecule due to contacting the regulatory element with the agent. Such a method can be performed *in vitro* in a plant cell-free system, or in a plant cell in culture or in a plant *in situ*. In another embodiment, the agent is contacted with a transgenic plant containing an introduced plant stress-regulated regulatory element, and an agent that modulates the activity of the regulatory element is identified by detecting a phenotypic change in the transgenic plant. The methods of the invention can be performed in the presence or absence of the stress condition to which the particularly regulatory element is responsive.

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Another aspect provides a method for identifying an agent that alters abiotic stress responsive polynucleotide expression in a plant or plant cell comprising contacting a plant or plant cell with a test agent; subjecting the plant cell or plant cell to an abiotic stress or combination of stresses before, during or after contact with the agent to be tested; obtaining an expression profile of the plant or plant cell and comparing the expression profile of the plant or plant cell to an expression profile from a plant or plant cell not exposed to the abiotic stress or combination of stresses. In one embodiment, the expression profile comprises expression data for at least one nucleotide sequence comprising any of SEQ ID NOS:1-5379 (see Tables 1 and 2). In additional embodiments, the expression profile comprises expression data for at least one, and preferably two or more sequences associated with a particular abiotic stress or combination of stresses such as cold stress (SEQ ID NOS:1-1261 and 2704-3955), osmotic stress (SEQ ID NOS:2428-2585 and 5108-5263), saline stress (SEQ ID NOS:2227-2427 and 4910-5107), a combination of cold and osmotic stress (SEQ ID NOS:1699-1969 and 4389-4654), a combination of cold and saline stress (SEQ ID NOS:1970-2226 and 4655-4909), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703 and 5264-5379), or a combination of cold, osmotic and saline stress (SEQ ID NOS:1262-1698 and 3956-4388).

Still another aspect provides nucleotide probes useful for detecting an abiotic stress response in plants, the probes comprising a nucleotide sequence of at least 15, 25, 50 or 100 nucleotides that hybridizes under stringent, preferably highly stringent,

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conditions to at least one sequence comprising any of SEQ ID NOS:1-2703. Also provided are nucleotide probes comprising at least 15, 25, 50 or 100 nucleotides in length that hybridize under stringent, preferably highly stringent conditions, to at least one gene associated with a particular stress or combination of stresses, for example cold stress, (SEQ ID NOS:1-1261), osmotic stress (SEQ ID NOS:2428-2585), saline stress (SEQ ID NOS:2227-2427), a combination of cold and osmotic stress (SEQ ID NOS:1970-2226), a combination of osmotic and saline stress (SEQ ID NOS:2586-2703), or a combination of cold, osmotic, and saline stress (SEQ ID NOS:1262-1698).

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An additional aspect provides a method for marker-assisted breeding to select plants having an altered resistance to abiotic stress comprising obtaining nucleic acid molecules from the plants to be selected; contacting the nucleic acid molecules with one or more probes that selectively hybridize under stringent, preferably highly stringent, conditions to a nucleic acid sequence selected from the group consisting of SEQ ID NOS:1-2703; detecting the hybridization of the one or more probes to the nucleic acid sequences wherein the presence of the hybridization indicates the presence of a gene associated with altered resistance to abiotic stress; and selecting plants on the basis of the presence or absence of such hybridization. Marker-assisted selection can also be accomplished using one or more probes which selectively hybridize under stringent, preferably highly stringent conditions, to a nucleotide sequence comprising a polynucleotide expressed in response associated with a particular stress, for example, a nucleotide sequence comprising any of SEO ID NOS:1-1261 (cold stress), SEQ ID NOS:2428-2585 (osmotic stress), SEQ ID NOS:2227-2427 (saline stress), SEQ ID NOS:1699-1969 (cold and osmotic stress), SEQ ID NOS:1970-2226 (cold and saline stress), SEQ ID NOS:2586-2703 (osmotic and saline stress), or SEQ ID NOS:1262-1698 (cold, osmotic and saline stress). In each case marker-assisted selection can be accomplished using a probe or probes to a single sequence or multiple sequences. If multiple sequences are used they can be used simultaneously or sequentially.

A further aspect provides a method for monitoring a population of plants comprising providing at least one sentinel plant containing a recombinant polynucleotide comprising a stress responsive regulatory sequence selected from the

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group consisting of SEQ ID NOS:2704-5379 which is operatively linked to a nucleotide sequence encoding a detectable marker, for example a fluorescent protein. Additional aspects provide the use of various regulatory sequences including those associated with cold stress (SEQ ID NOS:2704-3955), osmotic stress (SEQ ID NOS:5108-5263), saline stress (SEQ ID NOS:4910-5107), cold and osmotic stress (SEQ ID NOS:4389-4654), cold and saline stress (SEQ ID NOS:4655-4909), osmotic and saline stress (SEQ ID NOS:5264-5379), and cold, osmotic and saline stress (SEQ ID NOS:3956-4388), or fragments thereof wherein such fragments can alter transcription of an operatively linked nucleotide sequence in response to an abiotic stress.

A further aspect provides a computer readable medium having stored thereon computer executable instructions for performing a method comprising receiving data on gene expression in a test plant of at least one nucleic acid molecule having at least 70%, preferably at least 80%, more preferably at least 90%, and most preferably at least 95% nucleotide sequence identity to one or more polynucleotide sequences as set forth in any of SEQ ID NOS:1-2703; and comparing expression data from the test plant to expression data for the same polynucleotide sequence or sequences in a plant that has been exposed to at least one abiotic stress.

Yet a further aspect provides a computer readable medium having stored thereon a data structure comprising, sequence data for at least one, and preferably a plurality of nucleic acid molecules having at least 70%, preferably at least 80%, more preferably at least 90%, and most preferably at least 95% nucleotide sequence identity to a polynucleotide comprising any of SEQ ID NOS:1-2703, or the complement thereof; and a module receiving the nucleic acid molecule sequence data which compares the nucleic acid molecule sequence data to at least one other nucleic acid sequence.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to clusters of genes that are induced in response to one or a combination of abiotic stress conditions. Abiotic stress conditions, such as a shortage or excess of solar energy, water and nutrients, and salinity, high and low temperature, or pollution (e.g., heavy metals), can have a major impact on plant growth and can significantly reduce the yield, for example, of cultivars. Under

conditions of abiotic stress, the growth of plant cells is inhibited by arresting the cell cycle in late G1, before DNA synthesis, or at the G2/M boundary (see Dudits, Plant Cell Division, Portland Press Research, Monograph; Francis, Dudits, and Inze, eds., 1997; chap. 2, page 21; Bergounioux, <u>Protoplasma</u> 142:127-136, 1988). The identification of stress-regulated gene clusters, using microarray technology, provides a means to identify plant stress-regulated genes.

As used herein, the term "cluster," when used in reference to stress-regulated genes, refers to nucleotide sequences of genes that have been selected by drawing Venn diagrams, and selecting those genes that are regulated only by a selected stress condition. In general, a cluster of stress-regulated genes includes at least 5, 10, 15, or 20 genes, including polynucleotide portions thereof, each of which is responsive to the same selected stress condition or conditions. The selected stress condition can be a single stress condition, for example, cold, osmotic stress or salinity stress (see Tables 3-14), or can be a selected combination of stress conditions, for example, cold, osmotic stress and salinity stress (see Tables 15-26). In addition, a cluster can be selected based on specifying that all of the genes are coordinately regulated, for example, they all start at a low level and are induced to a higher level. However, a cluster of saline stress-regulated genes, for example, that was selected for coordinate regulation from low to high, also can be decreased in response to cold or mannitol. By varying the parameters used for selecting a cluster of gene nucleotide sequences, those genes that are expressed in a specific manner following a stress can be identified.

As used herein in reference to a polynucleotide or polynucleotide portion of a gene or nucleic acid molecule, the term "isolated" means a polynucleotide, polynucleotide portion of a gene, or nucleic acid molecule that is free of one or both of the nucleotide sequences that normally flank the polynucleotide in a genome of a naturally-occurring organism from which the polynucleotide is derived. The term includes, for example, a polynucleotide or fragment thereof that is incorporated into a vector or expression cassette; into an autonomously replicating plasmid or virus; into the genomic DNA of a prokaryote or eukaryote; or that exists as a separate molecule independent of other polynucleotides. It also includes a recombinant polynucleotide that is part of a hybrid polynucleotide, for example, one encoding a polypeptide sequence.

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The terms "polynucleotide," "oligonucleotide," and "nucleic acid sequence" are used interchangeably herein to refer to a polymeric (2 or more monomers) form of nucleotides of any length, either ribonucleotides or deoxyribonucleotides. Although nucleotides are usually joined by phosphodiester linkages, the term also includes polymers containing neutral amide backbone linkages composed of aminoethyl glycine units. The terms are used only to refer to the primary structure of the molecule. Thus, the term includes double stranded and single stranded DNA molecules, including a sense strand or an antisense strand, and RNA molecules as well as genomic DNA, cDNA, mRNA and the like. It will be recognized that such polynucleotides can be modified, for example, by including a label such as a radioactive, fluorescent or other tag, by methylation, by the inclusion of a cap structure, by containing a substitution of one or more of the naturally occurring nucleotides with a nucleotide analog, by containing an internucleotide modification such as having uncharged linkages (e.g., methyl phosphonates, phosphotriesters, phosphoramidates, carbamates, or the like), by containing a pendant moiety such as a protein (e.g., a nuclease, toxin, antibody, signal peptide, poly-L-lysine, or the like), by containing an intercalator such as acridine or psoralen, by containing a chelator, which can be a metal such as boron, an oxidative metal, or a radioactive metal, by containing an alkylator, or by having a modified linkage (e.g., an alpha anomeric nucleic acid).

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The term "recombinant nucleic acid molecule" refers to a polynucleotide produced by human intervention. A recombinant nucleic acid molecule can contain two or more nucleotide sequences that are linked in a manner such that the product is not found in a cell in nature. In particular, the two or more nucleotide sequences can be operatively linked and, for example, can encode a fusion polypeptide, or can comprise a nucleotide sequence and a regulatory element. A recombinant nucleic acid molecule also can be based on, but different, from a naturally occurring polynucleotide, for example, a polynucleotide having one or more nucleotide changes such that a first codon, which normally is found in the polynucleotide, is replaced with a degenerate codon that encodes the same or a conservative amino acid, or such that a sequence of interest is introduced into the polynucleotide, for example, a

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restriction endonuclease recognition site or a splice site, a promoter, a DNA replication initiation site, or the like.

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As used herein, the term "abiotic stress" or "abiotic stress condition" refers to the exposure of a plant, plant cell, or the like, to a non-living ("abiotic") physical or chemical agent or condition that has an adverse effect on metabolism, growth, development, propagation and/or survival of the plant (collectively "growth"). An abiotic stress can be imposed on a plant due, for example, to an environmental factor such as water (e.g., flooding, drought, dehydration), anaerobic conditions (e.g., a low level of oxygen), abnormal osmotic conditions, salinity or temperature (e.g., hot/heat, cold, freezing, frost), a deficiency of nutrients or exposure to pollutants, or by a hormone, second messenger or other molecule. Anaerobic stress, for example, is due to a reduction in oxygen levels (hypoxia or anoxia) sufficient to produce a stress response. A flooding stress can be due to prolonged or transient immersion of a plant, plant part, tissue or isolated cell in a liquid medium such as occurs during monsoon, wet season, flash flooding or excessive irrigation of plants, or the like. A cold stress or heat stress can occur due to a decrease or increase, respectively, in the temperature from the optimum range of growth temperatures for a particular plant species. Such optimum growth temperature ranges are readily determined or known to those skilled in the art. Dehydration stress can be induced by the loss of water, reduced turgor, or reduced water content of a cell, tissue, organ or whole plant. Drought stress can be induced by or associated with the deprivation of water or reduced supply of water to a cell, tissue, organ or organism. Saline stress (salt stress) can be associated with or induced by a perturbation in the osmotic potential of the intracellular or extracellular environment of a cell. Osmotic stress also can be associated with or induced by a change, for example, in the concentration of molecules in the intracellular or extracellular environment of a plant cell, particularly where the molecules cannot be partitioned across the plant cell membrane.

As disclosed herein, clusters of plant stress-regulated genes (Example 1; see, also, Tables 1-31) and homologs and orthologs thereof (Table 32) have been identified. Remarkably, several of the stress-regulated genes previously were known to encode polypeptides having defined cellular functions, including roles as transcription factors, enzymes such as kinases, and structural proteins such as channel proteins (see

Tables 29-31). The identification of *Arabidopsis* stress-regulated genes provides a means to identify homologous and orthologous genes and gene sequences in other plant species using well known procedures and algorithms based on identity (or homology) to the disclosed sequences. Thus, the invention provides polynucleotide sequences comprising plant stress-regulated genes that are homologs or orthologs, variants, or otherwise substantially similar to the polynucleotides disclosed herein, and having an E value $\leq 1 \times 10^{-8}$, which can be identified, for example, by a BLASTN search using the *Arabidopsis* polynucleotides of Tables 1 and 2 (SEQ ID NOS:1-5379) as query sequences (see Table 32).

10 A polynucleotide sequence of a stress-regulated gene as disclosed herein can be particularly useful for performing the methods of the invention on a variety of plants, including but not limited to, corn (Zea mays), Brassica sp. (e.g., B. napus, B. rapa, B. juncea), particularly those Brassica species useful as sources of seed oil, alfalfa (Medicago sativa), rice (Oryza sativa), rye (Secale cereale), sorghum (Sorghum bicolor, Sorghum vulgare), millet (e.g., pearl millet (Pennisetum glaucum), 15 proso millet (Panicum miliaceum), foxtail millet (Setaria italica), finger millet (Eleusine coracana)), sunflower (Helianthus annuus), safflower (Carthamus tinctorius), wheat (Triticum aestivum), soybean (Glycine max), tobacco (Nicotiana tabacum), potato (Solanum tuberosum), peanuts (Arachis hypogaea), cotton 20 (Gossypium barbadense, Gossypium hirsutum), sweet potato (Ipomoea batatus), cassava (Manihot esculenta), coffee (Cofea spp.), coconut (Cocos nucifera), pineapple (Ananas comosus), citrus trees (Citrus spp.), cocoa (Theobroma cacao), tea (Camellia sinensis), banana (Musa spp.), avocado (Persea ultilane), fig (Ficus casica), guava (Psidium guajava), mango (Mangifera indica), olive (Olea europaea), 25 papaya (Carica papaya), cashew (Anacardium occidentale), macadamia (Macadamia integrifolia), almond (Prunus amygdalus), sugar beets (Beta vulgaris), sugarcane (Saccharum spp.), oats, duckweed (Lemna), barley, tomatoes (Lycopersicon esculentum), lettuce (e.g., Lactuca sativa), green beans (Phaseolus vulgaris), lima beans (Phaseolus limensis), peas (Lathyrus spp.), and members of the genus Cucumis 30 such as cucumber (C. sativus), cantaloupe (C. cantalupensis), and musk melon (C. melo). Ornamentals such as azalea (Rhododendron spp.), hydrangea (Macrophylla hydrangea), hibiscus (Hibiscus rosasanensis), roses (Rosa spp.), tulips (Tulipa spp.),

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daffodils (Narcissus spp.), petunias (Petunia hybrida), carnation (Dianthus caryophyllus), poinsettia (Euphorbia pulcherrima), and chrysanthemum are also included. Additional ornamentals within the scope of the invention include impatiens, Begonia, Pelargonium, Viola, Cyclamen, Verbena, Vinca, Tagetes, Primula, Saint Paulia, Agertum, Amaranthus, Antihirrhinum, Aquilegia, Cineraria, Clover, Cosmo, Cowpea, Dahlia, Datura, Delphinium, Gerbera, Gladiolus, Gloxinia, Hippeastrum, Mesembryanthemum, Salpiglossos, and Zinnia. Conifers that may be employed in practicing the present invention include, for example, pines such as loblolly pine (Pinus taeda), slash pine (Pinus elliotii), ponderosa pine (Pinus ponderosa), lodgepole pine (Pinus contorta), and Monterey pine (Pinus radiata), Douglas-fir (Pseudotsuga menziesii); Western hemlock (Tsuga ultilane); Sitka spruce (Picea glauca); redwood (Sequoia sempervirens); true firs such as silver fir (Abies amabilis) and balsam fir (Abies balsamea); and cedars such as Western red cedar (Thuja plicata) and Alaska yellow-cedar (Chamaecyparis nootkatensis).

Leguminous plants which may be used in the practice of the present invention include beans and peas. Beans include guar, locust bean, fenugreek, soybean, garden beans, cowpea, mung bean, lima bean, fava bean, lentils, chickpea, etc. Legumes include, but are not limited to, *Arachis*, e.g., peanuts, *Vicia*, e.g., crown vetch, hairy vetch, adzuki bean, mung bean, and chickpea, *Lupinus*, e.g., lupine, trifolium, *Phaseolus*, e.g., common bean and lima bean, *Pisum*, e.g., field bean, *Melilotus*, e.g., clover, *Medicago*, e.g., alfalfa, Lotus, e.g., trefoil, lens, e.g., lentil, and false indigo. Preferred forage and turf grass for use in the methods of the invention include alfalfa, orchard grass, tall fescue, perennial ryegrass, creeping bent grass, and redtop.

Other plants within the scope of the invention include *Acacia*, aneth, artichoke, arugula, blackberry, canola, cilantro, clementines, escarole, eucalyptus, fennel, grapefruit, honey dew, jicama, kiwifruit, lemon, lime, mushroom, nut, okra, orange, parsley, persimmon, plantain, pomegranate, poplar, radiata pine, radicchio, Southern pine, sweetgum, tangerine, triticale, vine, yams, apple, pear, quince, cherry, apricot, melon, hemp, buckwheat, grape, raspberry, chenopodium, blueberry, nectarine, peach, plum, strawberry, watermelon, eggplant, pepper, cauliflower, Brassica, e.g., broccoli, cabbage, ultilan sprouts, onion, carrot, leek, beet, broad bean,

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celery, radish, pumpkin, endive, gourd, garlic, snapbean, spinach, squash, turnip, ultilane, chicory, groundnut and zucchini.

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As used herein, the term "substantially similar", when used herein with respect to a nucleotide sequence, means a nucleotide sequence corresponding to a reference nucleotide sequence, wherein the corresponding sequence encodes a polypeptide or comprises a regulatory element having substantially the same structure and function as the polypeptide encoded by the reference nucleotide sequence, for example, where only changes in amino acids not affecting the polypeptide function occur. For purposes of the present invention, a reference (or query) sequence is a polynucleotide sequence as set forth in any of SEQ ID NOS:1-2703 or a polypeptide encoded thereby. Desirably, a substantially similar nucleotide sequence encodes the polypeptide encoded by the reference nucleotide sequence. The percentage of identity between the substantially similar nucleotide sequence and the reference nucleotide sequence desirably is at least 60%, more desirably at least 75%, preferably at least 90%, more preferably at least 95%, still more preferably at least 99% and including 100%. A nucleotide sequence is "substantially similar" to reference nucleotide sequence hybridizes to the reference nucleotide sequence in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C with washing in 2X SSC, 0.1% SDS at 50°C, more desirably in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C with washing in 1X SSC, 0.1% SDS at 50°C (stringent conditions), more desirably still in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C with washing in 0.5X SSC, 0.1% SDS at 50°C (high stringency), preferably in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C with washing in 0.1% SSC, 0.1% SDS at 50°C (very high stringency), more preferably in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C with washing in 0.1% SSC, 0.1% SDS at 65°C (extremely high stringency).

In addition, the term "substantially similar," when used in reference to a polypeptide sequence, means that an amino acid sequence relative to a reference (query) sequence shares at least about 65% amino acid sequence identity, particularly at least about 75% amino acid sequence identity, and preferably at least about 85%, more

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preferably at least about 90%, and most preferably at least about 95% or greater amino acid sequence identity. Generally, sequences having an $E \le 10^{-8}$ are considered to be substantially similar to a query sequence. Such sequence identity can take into account conservative amino acid changes that do not substantially affect the function of a polypeptide. As such, homologs or orthologs of the *Arabidopsis* stress-regulated nucleotide sequences disclosed herein, variants thereof, and polypeptides substantially similar to the polynucleotide sequence of *Arabidopsis* stress-regulated genes set forth in SEQ ID NOS:1-5379 are encompassed within the present invention and, therefore, useful for practicing the methods of the invention (see, for example, Table 32).

Homology or identity is often measured using sequence analysis software such as the Sequence Analysis Software Package of the Genetics Computer Group (University of Wisconsin Biotechnology Center, 1710 University Avenue, Madison, WI 53705). Such software matches similar sequences by assigning degrees of homology to various deletions, substitutions and other modifications. The terms "homology" and "identity," when used herein in the context of two or more nucleic acids or polypeptide sequences, refer to two or more sequences or subsequences that are the same or have a specified percentage of amino acid residues or of nucleotides that are the same when compared and aligned for maximum correspondence over a comparison window or designated region as measured using any number of sequence comparison algorithms or by manual alignment and visual inspection.

For sequence comparison, typically one sequence acts as a reference sequence, to which test sequences are compared. When using a sequence comparison algorithm, test and reference sequences are entered into a computer, subsequence coordinates are designated, if necessary, and sequence algorithm program parameters are designated. Default program parameters can be used, or alternative parameters can be designated. The sequence comparison algorithm then calculates the percent sequence identities for the test sequences relative to the reference sequence, based on the program parameters.

The term "comparison window" is used broadly herein to include reference to a segment of any one of the number of contiguous positions, for example, about 20 to 600 positions, for example, amino acid or nucleotide position, usually about 50 to about 200 positions, more usually about 100 to about 150 positions, in which a sequence may be compared to a reference sequence of the same number of contiguous positions

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after the two sequences are optimally aligned. Methods of alignment of sequence for comparison are well-known in the art. Optimal alignment of sequences for comparison can be conducted, for example, by the local homology algorithm of Smith and Waterman (Adv. Appl. Math. 2:482, 1981), by the homology alignment algorithm of Needleman and Wunsch (J. Mol. Biol. 48:443, 1970), by the search for similarity 5 method of Person and Lipman (Proc. Natl. Acad. Sci., USA 85:2444, 1988), each of which is incorporated herein by reference; by computerized implementations of these algorithms (GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package, Genetics Computer Group, 575 Science Dr., Madison, WI); or by manual alignment and visual inspection. Other algorithms for determining homology or identity 10 include, for example, in addition to a BLAST program (Basic Local Alignment Search Tool at the National Center for Biological Information), ALIGN, AMAS (Analysis of Multiply Aligned Sequences), AMPS (Protein Multiple Sequence Alignment), ASSET (Aligned Segment Statistical Evaluation Tool), BANDS, BESTSCOR, BIOSCAN (Biological Sequence Comparative Analysis Node), BLIMPS (BLocks 15 IMProved Searcher), FASTA, Intervals & Points, BMB, CLUSTAL V, CLUSTAL W. CONSENSUS, LCONSENSUS, WCONSENSUS, Smith-Waterman algorithm, DARWIN, Las Vegas algorithm, FNAT (Forced Nucleotide Alignment Tool), Framealign, Framesearch, DYNAMIC, FILTER, FSAP (Fristensky Sequence Analysis Package), GAP (Global Alignment Program), GENAL, GIBBS, GenQuest, 20 ISSC (Sensitive Sequence Comparison), LALIGN (Local Sequence Alignment), LCP (Local Content Program), MACAW (Multiple Alignment Construction & Analysis Workbench), MAP (Multiple Alignment Program), MBLKP, MBLKN, PIMA (Pattern-Induced Multi-sequence Alignment), SAGA (Sequence Alignment by Genetic Algorithm) and WHAT-IF. Such alignment programs can also be used to 25 screen genome databases to identify polynucleotide sequences having substantially identical sequences.

A number of genome databases are available for comparison. Several databases containing genomic information annotated with some functional information are maintained by different organizations, and are accessible via the internet, for example, at world wide web addresses (url's) "wwwtigr.org/tdb"; "genetics.wisc.edu";

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"genome-www.stanford.edu/~ball"; "hiv-web.lanl.gov"; "ncbi.nlm.nih.gov"; "ebi.ac.uk"; "Pasteur.fr/other/biology"; and "genome.wi.mit.edu".

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In particular, the BLAST and BLAST 2.0 algorithms using default parameters are particularly useful for identifying polynucleotide and polypeptides encompassed within the present invention (Altschul et al. (Nucleic Acids Res. 25:3389-3402, 1977; J. Mol. Biol. 215:403-410, 1990, each of which is incorporated herein by reference). Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information (http://www.ncbi.nlm.nih.gov). This algorithm involves first identifying high scoring sequence pairs (HSPs) by identifying short words of length W in the query sequence, which either match or satisfy some positive-valued threshold score T when aligned with a word of the same length in a database sequence. T is referred to as the neighborhood word score threshold (Altschul et al., supra, 1977, 1990). These initial neighborhood word hits act as seeds for initiating searches to find longer HSPs containing them. The word hits are extended in both directions along each sequence for as far as the cumulative alignment score can be increased. Cumulative scores are calculated using, for nucleotide sequences, the parameters M (reward score for a pair of matching residues; always >0). For amino acid sequences, a scoring matrix is used to calculate the cumulative score. Extension of the word hits in each direction are halted when: the cumulative alignment score falls off by the quantity X from its maximum achieved value; the cumulative score goes to zero or below, due to the accumulation of one or more negative-scoring residue alignments; or the end of either sequence is reached. The BLAST algorithm parameters W, T, and X determine the sensitivity and speed of the alignment. The BLASTN program (for nucleotide sequences) uses as defaults a wordlength (W) of 11, an expectation (E) of 10, M=5, N=4 and a comparison of both strands. For amino acid sequences, the BLASTP program uses as defaults a wordlength of 3, and expectations (E) of 10, and the BLOSUM62 scoring matrix (see Henikoff and Henikoff, Proc. Natl. Acad. Sci., USA 89:10915, 1989) alignments (B) of 50, expectation (E) of 10, M=5, N=4, and a comparison of both strands.

The BLAST algorithm also performs a statistical analysis of the similarity between two sequences (see, for example, Karlin and Altschul, <u>Proc. Natl. Acad. Sci.</u>, <u>USA</u> 90:5873, 1993, which is incorporated herein by reference). One measure of

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similarity provided by BLAST algorithm is the smallest sum probability (P(N)), which provides an indication of the probability by which a match between two nucleotide or amino acid sequences would occur by chance. For example, a nucleic acid is considered similar to a references sequence if the smallest sum probability in a comparison of the test nucleic acid to the reference nucleic acid is less than about 0.2, more preferably less than about 0.01, and most preferably less than about 0.001. Significantly, upon identifying polynucleotides that are substantially similar to those of SEQ ID NOS:1-5379, the identified polynucleotides can be used as query sequences in a BLAST search to identify polynucleotides and polypeptides substantially similar thereto.

It should be noted that the nucleotide sequences set forth as SEQ ID NOS:1-2703 comprise coding sequences, whereas the nucleotide sequences set forth as SEQ ID NOS:2704-5379 comprise regulatory sequences. In addition, the coding sequences and regulatory sequences are related in that, for example, SEQ ID NO:1 is the coding sequence of a plant cold regulated gene having a 5' upstream (regulatory) sequence set forth as SEQ ID NO:2704 (see Table 2). Similarly, SEQ ID NO:2705 comprises a regulatory region of SEQ ID NO:2, SEQ ID NO:2706 comprises a regulatory region of SEQ ID NO:3, and so forth as shown in Table 2. As such, reference herein, for example, to a "polynucleotide comprising SEQ ID NO:1" can, unless indicated otherwise, include at least SEO ID NO:2704. In some cases, the entire coding region of a plant stress regulated gene or the 5' upstream sequence has not yet been determined (see, for example, SEQ ID NO:43 in Table 3, where "none" indicates that 5' upstream regulatory sequences have not yet been determined). However, the determination of a complete coding sequence where only a portion is known or of regulatory sequences where a portion of the coding sequence is known can be made using methods as disclosed herein or otherwise known in the art.

In one embodiment, protein and nucleic acid sequence homologies are evaluated using the Basic Local Alignment Search Tool ("BLAST"). In particular, five specific BLAST programs are used to perform the following task:

- (1) BLASTP and BLAST3 compare an amino acid query sequence against a protein sequence database;
- (2) BLASTN compares a nucleotide query sequence against a nucleotide sequence database;

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- (3) BLASTX compares the six-frame conceptual translation products of a query nucleotide sequence (both strands) against a protein sequence database;
- (4) TBLASTN compares a query protein sequence against a nucleotide sequence database translated in all six reading frames (both strands); and
- (5) TBLASTX compares the six-frame translations of a nucleotide query sequence against the six-frame translations of a nucleotide sequence database.

The BLAST programs identify homologous sequences by identifying similar segments, which are referred to herein as "high-scoring segment pairs," between a query amino or nucleic acid sequence and a test sequence which is preferably obtained from a protein or nucleic acid sequence database. High-scoring segment pairs are preferably identified (*i.e.*, aligned) by means of a scoring matrix, many of which are known in the art. Preferably, the scoring matrix used is the BLOSUM62 matrix (Gonnet et al., Science 256:1443-1445, 1992; Henikoff and Henikoff, Proteins 17:49-61, 1993, each of which is incorporated herein by reference). Less preferably, the PAM or PAM250 matrices may also be used (Schwartz and Dayhoff, eds., "Matrices for Detecting Distance Relationships: Atlas of Protein Sequence and Structure" (Washington, National Biomedical Research Foundation 1978)). BLAST programs are accessible through the U.S. National Library of Medicine, for example, on the world wide web at address (url) "ncbi.nlm.nih.gov".

The parameters used with the above algorithms may be adapted depending on the sequence length and degree of homology studied. In some embodiments, the parameters may be the default parameters used by the algorithms in the absence of instructions from the user.

The term "substantially similar" also is used in reference to a comparison of expression profiles of nucleotide sequences, wherein a determination that an expression profile characteristic of a stress response is substantially similar to the profile of nucleic acid molecules expressed in a plant cell being examined ("test plant") is indicative of exposure of the test plant cell to one or a combination of abiotic stress conditions. When used in reference to such a comparison of expression profiles, the term "substantially similar" means that that the individual nucleotide sequences in the test plant cell profile are altered in the same manner as the corresponding nucleotide sequences in the expression profile characteristic of the stress response.

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By way of example, where exposure to saline results in an increased expression of nucleotide sequences A, B and C, and a decreased expression of nucleotide sequences D and E, as indicated by the expression profile characteristic of a saline stress response, a determination that corresponding nucleotide sequences A, B and C in the test plant cell are increased and that nucleotides sequences D and E are decreased is indicative of exposure of the test plant cell to a saline stress condition. It should be recognized that, where, for example, only nucleotide sequences A, B, D and E are examined in the test plant cell, an increase in A and B and a decrease in D and E expression of the test plant cells is considered to be substantially similar to the expression profile characteristic of a saline stress condition and, therefore, is indicative of exposure of the plant cell to a saline stress condition. Similarly, where the levels of expression of the nucleotide sequences examined in a test plant are altered in the same manner, i.e., are increased or are decreased, as that observed in an expression profile characteristic of a particular stress response, the absolute levels of expression may vary, for example, two-fold, five-fold, ten-fold, or the like. Nevertheless, the expression profile of the test plant cell is considered to be substantially similar to the expression profile characteristic of the particular stress response and, therefore, indicative of exposure of the plant cell to the stress condition.

As disclosed herein, clusters of stress-regulated genes (and their products), some of which also have been described as having cellular functions such as enzymatic activity or roles as transcription factors, are involved in the response of plant cells to various abiotic stresses (see Tables 29-31; see, also, Tables 1 and 32). As such, the polynucleotide sequences comprising the genes in a cluster likely share common stress-regulated regulatory elements, including, for example, cold-regulated regulatory elements (SEQ ID NOS:2704-3955), salinity-regulated regulatory elements (SEQ ID NOS:4910-5107, and osmotic pressure-regulated regulatory elements (SEQ ID NO:5103-5263), as well as regulatory elements that are responsive to a combination of stress conditions, but not to any of the individual stress conditions, alone (SEQ ID NOS:3956-4909 and 5263-5379). The identification of such clusters of genes thus provides a means to identify the stress-regulated regulatory elements that control the level of expression of these genes.

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As used herein, the term "plant stress-regulated gene" means a polynucleotide sequence of a plant, the transcription of which is altered in response to exposure to a stress condition, and the regulatory elements linked to such a polynucleotide sequence and involved in the stress response, which can be induction or repression. In general, plant stress gene regulatory elements are contained within a sequence including approximately two kilobases upstream (5') of the transcription or translation start site and two kilobases downstream (3') of the transcription or translation termination site. In the absence of an abiotic stress condition, the stress-regulated gene can normally be unexpressed in the cells, can be expressed at a basal level, which is induced to a higher level in response to the stress condition, or can be expressed at a level that is reduced (decreased) in response to the stress condition. The coding region of a plant stress-regulated gene encodes a stress-regulated polypeptide, and also can be the basis for expression of a functional RNA molecule such as an antisense molecule or ribozyme. A stress-regulated polypeptide can have an adaptive effect on a plant, thereby allowing the plant to better tolerate stress conditions; or can have a maladaptive effect, thereby decreasing the ability of the plant to tolerate the stress conditions.

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The present invention provides an isolated plant stress-regulated regulatory element, which regulates expression of an operatively linked nucleotide sequence in a plant in response a stress condition. As disclosed herein, a plant stress-regulated regulatory element can be isolated from a polynucleotide sequence of a plant stress-regulated gene comprising a nucleotide sequence as set forth in SEQ ID NOS:1-2703, for example any of SEQ ID NOS:2704-5379 (see Table 2). It is recognized that certain of the polynucleotides set forth as SEQ ID NOS:1-5379 previously have been described as being involved in a stress-regulated response in plants, including SEQ ID NOS:156, 229, 233, 558, 573, 606, 625, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918, and 1928 and, therefore, are not encompassed, in whole or in part, within the compositions of the invention, and are encompassed within only certain particular methods of the invention, for example, methods of making a transgenic plant that is resistant to two or more stress conditions, since, even where such a gene was known to be expressed in response to a single stress condition such as cold or saline (e.g., SEQ ID NO:1263), it was not known

prior to the present disclosure that any of these genes was responsive to a combination of stress conditions (for example, a combination of cold and osmotic stress for SEQ ID NOS:1726, 1866, 1918, and 1928; or a combination of cold, osmotic and saline stress for SEQ ID NOS:1263,1386, 1391, 1405, 1445, 1484, 1589, 1609, and 1634).

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Methods for identifying and isolating the stress-regulated regulatory element from the disclosed polynucleotides, or genomic DNA clones corresponding thereto, are well known in the art. For example, methods of making deletion constructs or linker-scanner constructs can be used to identify nucleotide sequences that are responsive to a stress condition. Generally, such constructs include a reporter gene operatively linked to the sequence to be examined for regulatory activity. By performing such assays, a plant stress-regulated regulatory element can be defined within a sequence of about 500 nucleotides or fewer, generally at least about 200 nucleotides or fewer, particularly about 50 to 100 nucleotides, and more particularly at least about 20 nucleotides or fewer. Preferably the minimal (core) sequence required for regulating a stress response of a plant is identified.

The nucleotide sequences of the genes of a cluster also can be examined using a homology search engine such as described herein to identify sequences of conserved identity, particularly in the nucleotide sequence upstream of the transcription start site. Since all of the genes in a cluster as disclosed are induced in response to a particular stress condition or a particular combination of stress conditions, some or all of the nucleotide sequences can share conserved stress-regulated regulatory elements. By performing such a homology search, putative stress-regulated regulatory elements can be identified. The ability of such identified sequences to function as a plant stress-regulated regulatory element can be confirmed, for example, by operatively linking the sequence to a reporter gene and assaying the construct for responsiveness to a stress condition.

As used herein, the term "regulatory element" means a nucleotide sequence that, when operatively linked to a coding region of a gene, effects transcription of the coding region such that a ribonucleic acid (RNA) molecule is transcribed from the coding region. A regulatory element generally can increase or decrease the amount of transcription of a nucleotide sequence, for example, a coding sequence, operatively linked to the element with respect to the level at which the nucleotide sequence would

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be transcribed absent the regulatory element. Regulatory elements are well known in the art and include promoters, enhancers, silencers, inactivated silencer intron sequences, 3'-untranslated or 5'-untranslated sequences of transcribed sequence, for example, a poly-A signal sequence, or other protein or RNA stabilizing elements, or other gene expression control elements known to regulate gene expression or the amount of expression of a gene product. A regulatory element can be isolated from a naturally occurring genomic DNA sequence or can be synthetic, for example, a synthetic promoter.

Regulatory elements can be constitutively expressed regulatory element, which maintain gene expression at a relative level of activity (basal level), or can be regulated regulatory elements. Constitutively expressed regulatory elements can be expressed in any cell type, or can be tissue specific, which are expressed only in particular cell types, phase specific, which are expressed only during particular developmental or growth stages of a plant cell, or the like. A regulatory element such as a tissue specific or phase specific regulatory element or an inducible regulatory element useful in constructing a recombinant polynucleotide or in a practicing a method of the invention can be a regulatory element that generally, in nature, is found in a plant genome. However, the regulatory element also can be from an organism other than a plant, including, for example, from a plant virus, an animal virus, or a cell from an animal or other multicellular organism.

A regulatory element useful for practicing method of the present is a promoter element. Useful promoters include, but are not limited to, constitutive, inducible, temporally regulated, developmentally regulated, spatially-regulated, chemically regulated, stress-responsive, tissue-specific, viral and synthetic promoters. Promoter sequences are known to be strong or weak. A strong promoter provides for a high level of gene expression, whereas a weak promoter provides for a very low level of gene expression. An inducible promoter is a promoter that provides for the turning on and off of gene expression in response to an exogenously added agent, or to an environmental or developmental stimulus. A bacterial promoter such as the Ptac promoter can be induced to varying levels of gene expression depending on the level of isothiopropylgalactoside added to the transformed bacterial cells. An isolated promoter sequence that is a strong promoter for heterologous nucleic acid is

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advantageous because it provides for a sufficient level of gene expression to allow for easy detection and selection of transformed cells and provides for a high level of gene expression when desired.

Within a plant promoter region there are several domains that are necessary for full function of the promoter. The first of these domains lies immediately upstream of the structural gene and forms the "core promoter region" containing consensus sequences, normally 70 base pairs immediately upstream of the gene. The core promoter region contains the characteristic CAAT and TATA boxes plus surrounding sequences, and represents a transcription initiation sequence that defines the transcription start point for the structural gene.

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The presence of the core promoter region defines a sequence as being a promoter: if the region is absent, the promoter is non-functional. The core promoter region, however, is insufficient to provide full promoter activity. A series of regulatory sequences upstream of the core constitute the remainder of the promoter. These regulatory sequences determine expression level, the spatial and temporal pattern of expression and, for an important subset of promoters, expression under inductive conditions (regulation by external factors such as light, temperature, chemicals, hormones).

To define a minimal promoter region, a DNA segment representing the promoter region is removed from the 5' region of the gene of interest and operably linked to the coding sequence of a marker (reporter) gene by recombinant DNA techniques well known to the art. The reporter gene is operably linked downstream of the promoter, so that transcripts initiating at the promoter proceed through the reporter gene. Reporter genes generally encode proteins which are easily measured, including, but not limited to, chloramphenicol acetyl transferase (CAT), beta-glucuronidase (GUS), green fluorescent protein (GFP), ϑ -galactosidase (ϑ -GAL), and luciferase.

The construct containing the reporter gene under the control of the promoter is then introduced into an appropriate cell type by transfection techniques well known to the art. To assay for the reporter protein, cell lysates are prepared and appropriate assays, which are well known in the art, for the reporter protein are performed. For example, if CAT were the reporter gene of choice, the lysates from cells transfected with constructs containing CAT under the control of a promoter under study are

36

mixed with isotopically labeled chloramphenicol and acetyl-coenzyme A (acetyl-CoA). The CAT enzyme transfers the acetyl group from acetyl-CoA to the 2-position or 3-position of chloramphenicol. The reaction is monitored by thin layer chromatography, which separates acetylated chloramphenicol from unreacted material. The reaction products are then visualized by autoradiography.

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The level of enzyme activity corresponds to the amount of enzyme that was made, which in turn reveals the level of expression from the promoter of interest. This level of expression can be compared to other promoters to determine the relative strength of the promoter under study. In order to be sure that the level of expression is determined by the promoter, rather than by the stability of the mRNA, the level of the reporter mRNA can be measured directly, for example, by northern blot analysis. Once activity is detected, mutational and/or deletional analyses may be employed to determine the minimal region and/or sequences required to initiate transcription. Thus, sequences can be deleted at the 5' end of the promoter region and/or at the 3' end of the promoter region, and nucleotide substitutions introduced. These constructs are then introduced to cells and their activity determined.

The choice of promoter will vary depending on the temporal and spatial requirements for expression, and also depending on the target species. In some cases, expression in multiple tissues is desirable. While in others, tissue-specific, e.g., leaf-specific, seed-specific, petal-specific, anther-specific, or pith-specific, expression is desirable. Although many promoters from dicotyledons have been shown to be operational in monocotyledons and *vice versa*, ideally dicotyledonous promoters are selected for expression in dicotyledons, and monocotyledonous promoters for expression in monocotyledons. There is, however, no restriction to the origin or source of a selected promoter. It is sufficient that the promoters are operational in driving the expression of a desired nucleotide sequence in the particular cell.

A range of naturally-occurring promoters are known to be operative in plants and have been used to drive the expression of heterologous (both foreign and endogenous) genes and nucleotide sequences in plants: for example, the constitutive 35S cauliflower mosaic virus (CaMV) promoter, the ripening-enhanced tomato polygalacturonase promoter (Bird et al., 1988), the E8 promoter (Diekman and Fischer, 1988) and the fruit specific 2A1 promoter (Pear et al., 1989). Many other

37

promoters, e.g., U2 and U5 snRNA promoters from maize, the promoter from alcohol dehydrogenase, the Z4 promoter from a gene encoding the Z4 22 kD zein protein, the Z10 promoter from a gene encoding a 10 kD zein protein, a Z27 promoter from a gene encoding a 27 kD zein protein, the A20 promoter from the gene encoding a 19 kD zein protein, inducible promoters, such as the light inducible promoter derived from the pea rbcS gene and the actin promoter from rice, e.g., the actin 2 promoter (WO 00/70067); seed specific promoters, such as the phaseolin promoter from beans, may also be used. The nucleotide sequences of the stress-regulated genes of this invention can also be expressed under the regulation of promoters that are chemically regulated. This enables the nucleic acid sequence or encoded polypeptide to be synthesized only when the crop plants are treated with the inducing chemicals. Chemical induction of gene expression is detailed in EP 0 332 104 and U.S. Pat. 5,614,395.

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In some instances it may be desirable to link a constitutive promoter to a polynucleotide comprising a stress regulated gene of the invention. Examples of some constitutive promoters include the rice actin 1 (Wang et al., 1992; U.S. Pat. No. 5,641,876), CaMV 35S (Odell et al., 1985), CaMV 19S (Lawton et al., 1987), nos, Adh, sucrose synthase; and the ubiquitin promoters.

In other situations it may be desirable to limit expression of stress-related sequences to specific tissues or stages of development. As used herein, the term "tissue specific or phase specific regulatory element" means a nucleotide sequence that effects transcription in only one or a few cell types, or only during one or a few stages of the life cycle of a plant, for example, only for a period of time during a particular stage of growth, development or differentiation. The terms "tissue specific" and "phase specific" are used together herein in referring to a regulatory element because a single regulatory element can have characteristics of both types of regulatory elements. For example, a regulatory element active only during a particular stage of plant development also can be expressed only in one or a few types of cells in the plant during the particular stage of development. As such, any attempt to classify such regulatory elements as tissue specific or as phase specific can be difficult. Accordingly, unless indicated otherwise, all regulatory elements having the

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characteristic of a tissue specific regulatory element, or a phase specific regulatory element, or both are considered together for purposes of the present invention.

Examples of tissue specific promoters which have been described include the lectin (Vodkin, 1983; Lindstrom et al., 1990) corn alcohol dehydrogenase 1 (Vogel et al., 1989; Dennis et al., 1984), corn light harvesting complex (Simpson, 1986; Bansal et al., 1992), corn heat shock protein (Odell et al., 1985), pea small subunit RuBP carboxylase (Poulsen et al., 1986), Ti plasmid mannopine synthase and Ti plasmid nopaline synthase (Langridge et al., 1989), petunia chalcone isomerase (vanTunen et al., 1988), bean glycine rich protein 1 (Keller et al., 1989), truncated CaMV 35s (Odell et al., 1985), potato patatin (Wenzler et al., 1989), root cell (Yamamoto et al., 1990), maize zein (Reina et al., 1990; Kriz et al., 1987; Wandelt et al., 1989; Langridge et al., 1983; Reina et al., 1990), globulin-1 (Belanger et al., 1991), α-tubulin, cab (Sullivan et al., 1989), PEPCase (Hudspeth & Grula, 1989), R gene complex-associated promoters (Chandler et al., 1989), histone, and chalcone synthase promoters (Franken et al., 1991). Tissue specific enhancers are described by Fromm et al. (1989).

Several other tissue-specific regulated genes and/or promoters have been reported in plants, including genes encoding seed storage proteins such as napin, cruciferin, beta-conglycinin, and phaseolin, zein or oil body proteins such as oleosin, genes involved in fatty acid biosynthesis, including acyl carrier protein, stearoyl-ACP desaturase, fatty acid desaturases (fad 2-1), and other genes expressed during embryonic development such as Bce4 (see, for example, EP 255378 and Kridl et al., 1991). Particularly useful for seed-specific expression is the pea vicilin promoter (Czako et al., 1992). (See also U.S. Pat. No. 5,625,136, which is incorporated herein by reference.) Other useful promoters for expression in mature leaves are those that are switched on at the onset of senescence, such as the SAG promoter from Arabidopsis (Gan et al., 1995).

A class of fruit-specific promoters expressed at or during antithesis through fruit development, at least until the beginning of ripening, is discussed in U.S. Pat. No. 4,943,674. cDNA clones that are preferentially expressed in cotton fiber have been isolated (John et al., 1992). cDNA clones from tomato displaying differential expression during fruit development have been isolated and characterized (Mansson et

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al., 1985, Slater et al., 1985). The promoter for polygalacturonase gene is active in fruit ripening. The polygalacturonase gene is described in U.S. Pat. Nos. 4,535,060, 4,769,061, 4,801,590, and 5,107,065, each of which is incorporated herein by reference.

Other examples of tissue-specific promoters include those that direct expression in leaf cells following damage to the leaf (for example, from chewing insects), in tubers (for example, patatin gene promoter), and in fiber cells (an example of a developmentally-regulated fiber cell protein is E6 (John et al., 1992). The E6 gene is most active in fiber, although low levels of transcripts are found in leaf, ovule and flower.

Additional tissue specific or phase specific regulatory elements include, for example, the AGL3/FRUITFULL regulatory element, which is activated upon floral induction (Hempel et al., Development 124:3845-3853, 1997, which is incorporated herein by reference); root specific regulatory elements such as the regulatory elements from the RCP1 gene and the LRP1 gene (Tsugeki and Fedoroff, Proc. Natl. Acad., USA 96:12941-12946, 1999; Smith and Fedoroff, Plant Cell 7:735-745, 1995, each of which is incorporated herein by reference); flower specific regulatory elements such as the regulatory elements from the LEAFY gene and the APETELA1 gene (Blazquez et al., <u>Development</u> 124:3835-3844, 1997, which is incorporated herein by reference; Hempel et al., supra, 1997); seed specific regulatory elements such as the regulatory element from the oleosin gene (Plant et al., Plant Mol. Biol. 25:193-205, 1994, which is incorporated herein by reference), and dehiscence zone specific regulatory element. Additional tissue specific or phase specific regulatory elements include the Zn13 promoter, which is a pollen specific promoter (Hamilton et al., Plant Mol. Biol. 18:211-218, 1992, which is incorporated herein by reference); the UNUSUAL FLORAL ORGANS (UFO) promoter, which is active in apical shoot meristem; the promoter active in shoot meristems (Atanassova et al., Plant J. 2:291, 1992, which is incorporated herein by reference), the cdc2a promoter and cyc07 promoter (see, for example, Ito et al., Plant Mol. Biol. 24:863, 1994; Martinez et al., Proc. Natl. Acad. Sci., USA 89:7360, 1992; Medford et al., Plant Cell 3:359, 1991; Terada et al., Plant J. 3:241, 1993; Wissenbach et al., Plant J. 4:411, 1993, each of which is incorporated herein by reference); the promoter of the APETELA3 gene, which is active in floral

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meristems (Jack et al., <u>Cell</u> 76:703, 1994, which is incorporated herein by reference; Hempel et al., *supra*, 1997); a promoter of an agamous-like (AGL) family member, for example, AGL8, which is active in shoot meristem upon the transition to flowering (Hempel et al., *supra*, 1997); floral abscission zone promoters; L1-specific promoters; and the like.

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The tissue-specificity of some "tissue-specific" promoters may not be absolute and may be tested by one skilled in the art using the diphtheria toxin sequence. One can also achieve tissue-specific expression with "leaky" expression by a combination of different tissue-specific promoters (Beals et al., 1997). Other tissue-specific promoters can be isolated by one skilled in the art (see U.S. 5,589,379). Several inducible promoters ("gene switches") have been reported, many of which are described in the review by Gatz (1996) and Gatz (1997). These include tetracycline repressor system, Lac repressor system, copper inducible systems, salicylate inducible systems (such as the PR1a system), glucocorticoid (Aoyama et al., 1997) and ecdysone inducible systems. Also included are the benzene sulphonamide (U.S. Pat. No. 5,364,780) and alcohol (WO 97/06269 and WO 97/06268) inducible systems and glutathione S-transferase promoters.

In some instances it might be desirable to inhibit expression of a native DNA sequence within a plant's tissues to achieve a desired phenotype. In this case, such inhibition might be accomplished with transformation of the plant to comprise a constitutive, tissue-independent promoter operably linked to an antisense nucleotide sequence, such that constitutive expression of the antisense sequence produces an RNA transcript that interferes with translation of the mRNA of the native DNA sequence.

Inducible regulatory elements also are useful for purposes of the present invention. As used herein, the term "inducible regulatory element" means a regulatory element that, when exposed to an inducing agent, effects an increased level of transcription of a nucleotide sequence to which it is operatively linked as compared to the level of transcription, if any, in the absence of an inducing agent. Inducible regulatory elements can be those that have no basal or constitutive activity and only effect transcription upon exposure to an inducing agent, or those that effect a basal or constitutive level of transcription, which is increased upon exposure to an inducing

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agent. Inducible regulatory elements that effect a basal or constitutive level of expression generally are useful in a method or composition of the invention where the induced level of transcription is substantially greater than the basal or constitutive level of expression, for example, at least about two-fold greater, or at least about five-fold greater. Particularly useful inducible regulatory elements do not have a basal or constitutive activity, or increase the level of transcription at least about ten-fold greater than a basal or constitutive level of transcription associated with the regulatory element.

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Inducible promoters that have been described include the ABA- and turgor-inducible promoters, the promoter of the auxin-binding protein gene (Schwob et al., 1993), the UDP glucose flavonoid glycosyl-transferase gene promoter (Ralston et al., 1988), the MPI proteinase inhibitor promoter (Cordero et al., 1994), and the glyceraldehyde-3-phosphate dehydrogenase gene promoter (Kohler et al., 1995; Quigley et al., 1989; Martinez et al., 1989).

The term "inducing agent" is used to refer to a chemical, biological or physical agent or environmental condition that effects transcription from an inducible regulatory element. In response to exposure to an inducing agent, transcription from the inducible regulatory element generally is initiated *de novo* or is increased above a basal or constitutive level of expression. Such induction can be identified using the methods disclosed herein, including detecting an increased level of RNA transcribed from a nucleotide sequence operatively linked to the regulatory element, increased expression of a polypeptide encoded by the nucleotide sequence, or a phenotype conferred by expression of the encoded polypeptide.

An inducing agent useful in a method of the invention is selected based on the particular inducible regulatory element. For example, the inducible regulatory element can be a metallothionein regulatory element, a copper inducible regulatory element or a tetracycline inducible regulatory element, the transcription from which can be effected in response to metal ions, copper or tetracycline, respectively (Furst et al., Cell 55:705-717, 1988; Mett et al., Proc. Natl. Acad. Sci., USA 90:4567-4571, 1993; Gatz et al., Plant J. 2:397-404, 1992; Roder et al., Mol. Gen. Genet. 243:32-38, 1994, each of which is incorporated herein by reference). The inducible regulatory element also can be an ecdysone regulatory element or a glucocorticoid regulatory

42

element, the transcription from which can be effected in response to ecdysone or other steroid (Christopherson et al., Proc. Natl. Acad. Sci., USA 89:6314-6318, 1992; Schena et al., Proc. Natl. Acad. Sci., USA 88:10421-10425, 1991, each of which is incorporated herein by reference). In addition, the regulatory element can be a cold responsive regulatory element or a heat shock regulatory element, the transcription of which can be effected in response to exposure to cold or heat, respectively (Takahashi et al., Plant Physiol. 99:383-390, 1992, which is incorporated herein by reference). Additional regulatory elements useful in the methods or compositions of the invention include, for example, the spinach nitrite reductase gene regulatory element (Back et al., Plant Mol. Biol. 17:9, 1991, which is incorporated herein by reference); a light inducible regulatory element (Feinbaum et al., Mol. Gen. Genet. 226:449, 1991; Lam and Chua, Science 248:471, 1990, each of which is incorporated herein by reference), a plant hormone inducible regulatory element (Yamaguchi-Shinozaki et al., Plant Mol. Biol. 15:905, 1990; Kares et al., Plant Mol. Biol. 15:225, 1990, each of which is incorporated herein by reference), and the like.

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An inducible regulatory element also can be a plant stress-regulated regulatory element of the invention. In addition to the known stress conditions that specifically induce or repress expression from such elements, the present invention provides methods of identifying agents that mimic a stress condition. Accordingly, such stress mimics are considered inducing or repressing agents with respect to a plant stressregulated regulatory element. In addition, a recombinant polypeptide comprising a zinc finger domain, which is specific for the regulatory element, and an effector domain, particularly an activator, can be useful as an inducing agent for a plant stressregulated regulatory element. Furthermore, such a recombinant polypeptide provides the advantage that the effector domain can be a repressor domain, thereby providing a repressing agent, which decreases expression from the regulatory element. In addition, use of such a method of modulating expression of an endogenous plant stress-regulated gene provides the advantage that the polynucleotide encoding the recombinant polypeptide can be introduced into cells of the plant, thus providing a transgenic plant that can be regulated coordinately with the endogenous plant stressregulated gene upon exposure to a stress condition. A polynucleotide encoding such a

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recombinant polypeptide can be operatively linked to and expressed from a constitutively active, inducible or tissue specific or phase specific regulatory element.

In one embodiment, the promoter may be a gamma zein promoter, an oleosin ole16 promoter, a globulin I promoter, an actin I promoter, an actin cl promoter, a sucrose synthetase promoter, an INOPS promoter, an EXM5 promoter, a globulin2 promoter, a b-32, ADPG-pyrophosphorylase promoter, an LtpI promoter, an Ltp2 promoter, an oleosin ole17 promoter, an oleosin ole18 promoter, an actin 2 promoter, a pollen-specific protein promoter, a pollen-specific pectate lyase promoter, an antherspecific protein promoter (Huffman), an anther-specific gene RTS2 promoter, a pollen- specific gene promoter, a tapeturn-specific gene promoter, tapeturn- specific gene RAB24 promoter, a anthranilate synthase alpha subunit promoter, an alpha zein promoter, an anthranilate synthase beta subunit promoter, a dihydrodipicolinate synthase promoter, a Thi I promoter, an alcohol dehydrogenase promoter, a cab binding protein promoter, an H3C4 promoter, a RUBISCO SS starch branching enzyme promoter, an ACCase promoter, an actin3 promoter, an actin7 promoter, a regulatory protein GF14-12 promoter, a ribosomal protein L9 promoter, a cellulose biosynthetic enzyme promoter, an S-adenosyl-L-homocysteine hydrolase promoter, a superoxide dismutase promoter, a C-kinase receptor promoter, a phosphoglycerate mutase promoter, a root-specific RCc3 mRNA promoter, a glucose-6 phosphate isomerase promoter, a pyrophosphate-fructose 6-phosphatelphosphotransferase promoter, an ubiquitin promoter, a beta-ketoacyl-ACP synthase promoter, a 33 kDa photosystem 11 promoter, an oxygen evolving protein promoter, a 69 kDa vacuolar ATPase subunit promoter, a metallothionein-like protein promoter, a glyceraldehyde-3-phosphate dehydrogenase promoter, an ABA- and ripening- inducible-like protein promoter, a phenylalanine ammonia lyase promoter, an adenosine triphosphatase S-adenosyl-L-homocysteine hydrolase promoter, an a- tubulin promoter, a cab promoter, a PEPCase promoter, an R gene promoter, a lectin promoter, a light harvesting complex promoter, a heat shock protein promoter, a chalcone synthase promoter, a zein promoter, a globulin-1 promoter, an ABA promoter, an auxinbinding protein promoter, a UDP glucose flavonoid glycosyl-transferase gene promoter, an NTI promoter, an actin promoter, an opaque 2 promoter, a b70 promoter. an oleosin promoter, a CaMV 35S promoter, a CaMV 19S promoter, a histone

44

promoter, a turgor-inducible promoter, a pea small subunit RuBP carboxylase promoter, a Ti plasmid mannopine synthase promoter, Ti plasmid nopaline synthase promoter, a petunia chalcone isomerase promoter, a bean glycine rich protein I promoter, a CaMV 35S transcript promoter, a potato patatin promoter, or a S-E9 small subunit RuBP carboxylase promoter.

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In addition to promoters, a variety of 5N and 3N transcriptional regulatory sequences are also available for use in the present invention. Transcriptional terminators are responsible for the termination of transcription and correct mRNA polyadenylation. The 3'-untranslated regulatory DNA sequence preferably includes from about 50 to about 1,000, more preferably about 100 to about 1,000, nucleotide base pairs and contains plant transcriptional and translational termination sequences. Appropriate transcriptional terminators and those which are known to function in plants include the CaMV 35S terminator, the tml terminator, the nopaline synthase terminator, the pea rbcS E9 terminator, the terminator for the T7 transcript from the octopine synthase gene of Agrobacterium tumefaciens, and the 3N end of the protease inhibitor I or II genes from potato or tomato, although other 3N elements known to those of skill in the art can also be employed. Alternatively, one also could use a gamma coixin, oleosin 3 or other terminator from the genus Coix. Preferred 3' elements include those from the nopaline synthase gene of Agrobacterium tumefaciens (Bevan et al., 1983), the terminator for the T7 transcript from the octopine synthase gene of Agrobacterium tumefaciens, and the 3' end of the protease inhibitor I or II genes from potato or tomato.

As the DNA sequence between the transcription initiation site and the start of the coding sequence, i.e., the untranslated leader sequence, can influence gene expression, one may also wish to employ a particular leader sequence. Preferred leader sequences are contemplated to include those that include sequences predicted to direct optimum expression of the attached sequence, i.e., to include a preferred consensus leader sequence that may increase or maintain mRNA stability and prevent inappropriate initiation of translation. The choice of such sequences will be known to those of skill in the art in light of the present disclosure. Sequences that are derived from genes that are highly expressed in plants will be most preferred.

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Other sequences that have been found to enhance gene expression in transgenic plants include intron sequences (e.g., from Adh1, bronze1, actin1, actin 2 (WO 00/760067), or the sucrose synthase intron) and viral leader sequences (e.g., from TMV, MCMV and AMV). For example, a number of non-translated leader sequences derived from viruses are known to enhance expression. Specifically, leader sequences from tobacco mosaic virus (TMV), maize chlorotic mottle virus (MCMV), and alfalfa mosaic virus (AMV) have been shown to be effective in enhancing expression (e.g., Gallie et al., 1987; Skuzeski et al., 1990). Other leaders known in the art include but are not limited to picornavirus leaders, for example, EMCV leader (encephalomyocarditis virus 5' non-coding region; Elroy-Stein et al., 1989); potyvirus leaders, for example, TEV leader (tobacco etch virus); MDMV leader (maize dwarf mosaic virus); human immunoglobulin heavy chain binding protein (BiP) leader, (Macejak et al., 1991); untranslated leader from the coat protein mRNA of AMV (AMV RNA 4; Jobling et al., 1987), TMV (Gallie et al., 1989), and MCMV (Lommel et al., 1991; see also, della Cioppa et al., 1987).

Regulatory elements such as Adh intron 1 (Callis et al., 1987), sucrose synthase intron (Vasil et al., 1989) or TMV omega element (Gallie, et al., 1989), may further be included where desired. Examples of enhancers include elements from the CaMV 35S promoter, octopine synthase genes (Ellis et al., 1987), the rice actin I gene, the maize alcohol dehydrogenase gene (Callis et al., 1987), the maize shrunken I gene (Vasil et al., 1989), TMV Omega element (Gallie et al., 1989) and promoters from non-plant eukaryotes (e.g. yeast; Ma et al., 1988).

Vectors for use in accordance with the present invention may be constructed to include the ocs enhancer element, which was first identified as a 16 bp palindromic enhancer from the octopine synthase (ocs) gene of ultilane (Ellis et al., 1987), and is present in at least 10 other promoters (Bouchez et al., 1989). The use of an enhancer element, such as the ocs element and particularly multiple copies of the element, will act to increase the level of transcription from adjacent promoters when applied in the context of monocot transformation.

The methods of the invention provide genetically modified plant cells, which can contain, for example, a coding region, or peptide portion thereof, of a plant stress-regulated gene operatively linked to a heterologous inducible regulatory element; or a

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plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence encoding a polypeptide of interest. In such a plant, the expression from the inducible regulatory element can be effected by exposing the plant cells to an inducing agent in any of numerous ways depending, for example, on the inducible regulatory element and the inducing agent. For example, where the inducible regulatory element is a cold responsive regulatory element present in the cells of a transgenic plant, the plant can be exposed to cold conditions, which can be produced artificially, for example, by placing the plant in a thermostatically controlled room, or naturally, for example, by planting the plant in an environment characterized, at least in part, by attaining temperatures sufficient to induce transcription from the promoter but not so cold as to kill the plants. By examining the phenotype of such transgenic plants, those plants that ectopically express a gene product that confers increased resistance of the plant to cold can be identified. Similarly, a transgenic plant containing a metallothionein promoter can be exposed to metal ions such as cadmium or copper by watering the plants with a solution containing the inducing metal ions, or can be planted in soil that is contaminated with a level of such metal ions that is toxic to most plants. The phenotype of surviving plants can be observed, those expressing desirable traits can be selected.

As used herein, the term "phenotype" refers to a physically detectable characteristic. A phenotype can be identified visually by inspecting the physical appearance of a plant following exposure, for example, to increased osmotic conditions; can be identified using an assay to detecting a product produced due to expression of reporter gene, for example, an RNA molecule, a polypeptide such as an enzyme, or other detectable signal such as disclosed herein; or by using any appropriate tool useful for identifying a phenotype of a plant, for example, a microscope, a fluorescence activated cell sorter, or the like.

A transgenic plant containing an inducible regulatory element such as a steroid inducible regulatory element can be exposed to a steroid by watering the plants with a solution containing the steroid. The use of an inducible regulatory element that is induced upon exposure to a chemical or biological inducing agent that can be placed in solution or suspension in an aqueous medium can be particularly useful because the inducing agent can be applied conveniently to a relatively large crop of transgenic

plants containing the inducible regulatory element, for example, through a watering system or by spraying the inducing agent over the field. As such, inducible regulatory elements that are responsive to an environmental inducing agent, for example, cold; heat; metal ions or other potentially toxic agents such as a pesticides, which can contaminate a soil; or the like; or inducible regulatory elements that are regulated by inducing agents that conveniently can be applied to plants, can be particularly useful in a method or composition of the invention, and allow the identification and selection of plants that express desirable traits and survive and grow in environments that otherwise would not support growth of the plants.

As disclosed herein, the present invention provides plant stress-regulated regulatory elements, which are identified based on the expression of clusters of plant genes in response to stress. As used herein, the term "stress-regulated regulatory element of a plant" or "plant stress-regulated regulatory element" means a nucleotide sequence of a plant genome that can respond to a stress such that expression of a gene product encoded by a gene comprising the regulatory element (a stress-inducible gene) is increased above or decreased below the level of expression of the gene product in the absence of the stress condition. The regulatory element can be any gene regulatory element, including, for example, a promoter, an enhancer, a silencer, or the like. In one embodiment, the plant stress-regulated regulatory element is a plant stress-regulated promoter.

For purposes of modulating the responsiveness of a plant to a stress condition, it can be useful to introduce a modified plant stress-regulated regulatory element into a plant. Such a modified regulatory element can have any desirable characteristic, for example, it can be inducible to a greater level than the corresponding wild-type promoter, or it can be inactivated such that, upon exposure to a stress, there is little or no induction of expression of a nucleotide sequence operatively linked to the mutant element. A plant stress-regulated regulatory element can be modified by incorporating random mutations using, for example, *in vitro* recombination or DNA shuffling (Stemmer et al., Nature 370: 389-391, 1994; U.S. Pat. No. 5,605,793, each of which is incorporated herein by reference). Using such a method, millions of mutant copies of the polynucleotide, for example, stress-regulated regulatory element,

can be produced based on the original nucleotide sequence, and variants with improved properties, such as increased inducibility can be recovered.

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third steps for at least 10 cycles.

A mutation method such as DNA shuffling encompasses forming a mutagenized double-stranded polynucleotide from a template double-stranded polynucleotide, wherein the template double-stranded polynucleotide has been cleaved into double stranded random fragments of a desired size, and comprises the steps of adding to the resultant population of double-stranded random fragments one or more single or double stranded oligonucleotides, wherein the oligonucleotides comprise an area of identity and an area of heterology to the double stranded template polynucleotide; denaturing the resultant mixture of double stranded random fragments and oligonucleotides into single stranded fragments; incubating the resultant population of single stranded fragments with a polymerase under conditions that result in the annealing of the single stranded fragments at the areas of identity to form pairs of annealed fragments, the areas of identity being sufficient for one member of a pair to prime replication of the other, thereby forming a mutagenized double-stranded polynucleotide; and repeating the second and third steps for at least two further cycles, wherein the resultant mixture in the second step of a further cycle includes the mutagenized double-stranded polynucleotide from the third step of the previous cycle, and the further cycle forms a further mutagenized double-stranded polynucleotide. Preferably, the concentration of a single species of double stranded random fragment in the population of double stranded random fragments is less than 1% by weight of the total DNA. In addition, the template double stranded polynucleotide can comprise at least about 100 species of polynucleotides. The size of the double stranded random fragments can be from about 5 base pairs to 5 kilobase pairs. In a further embodiment, the fourth step of the method comprises repeating the second and the

A plant stress-regulated regulatory element of the invention is useful for expressing a nucleotide sequence operatively linked to the element in a cell, particularly a plant cell. As used herein, the term "expression" refers to the transcription and/or translation of an endogenous gene or a transgene in plants. In the case of an antisense molecule, for example, the term "expression" refers to the transcription of the polynucleotide encoding the antisense molecule.

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As used herein, the term "operatively linked," when used in reference to a plant stress-regulated regulatory element, means that the regulatory element is positioned with respect to a second nucleotide sequence such that the regulatory element effects transcription or transcription and translation of the nucleotide sequence in substantially the same manner, but not necessarily to the same extent, as it does when the regulatory element is present in its natural position in a genome. Transcriptional promoters, for example, generally act in a position and orientation dependent manner and usually are positioned at or within about five nucleotides to about fifty nucleotides 5' (upstream) of the start site of transcription of a gene in nature. In comparison, enhancers and silencers can act in a relatively position or orientation independent manner and, therefore, can be positioned several hundred or thousand nucleotides upstream or downstream from a transcription start site, or in an intron within the coding region of a gene, yet still be operatively linked to a coding region so as to effect transcription.

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The second nucleotide sequence, i.e., the sequence operatively linked to the plant stress-regulated regulatory element, can be any nucleotide sequence, including, for example, a coding region of a gene or cDNA; a sequence encoding an antisense molecule, an RNAi molecule, ribozyme, triplexing agent (see, for example, Frank-Kamenetskii and Mirkin, Ann. Rev. Biochem. 64:65-95, 1995), or the like; or a sequence that, when transcribed, can be detected in the cell using, for example, by hybridization or amplification, or when translated produces a detectable signal. The term "coding region" is used broadly herein to include a nucleotide sequence of a genomic DNA or a cDNA molecule comprising all or part of a coding region of the coding strand. A coding region can be transcribed from an operatively linked regulatory element, and can be translated into a full length polypeptide or a peptide portion of a polypeptide. It should be recognized that, in a nucleotide sequence comprising a coding region, not all of the nucleotides in the sequence need necessarily encode the polypeptide and, particularly, that a gene transcript can contain one or more introns, which do not encode an amino acid sequence of a polypeptide but, nevertheless, are part of the coding region, particularly the coding strand, of the gene.

The present invention also relates to a recombinant polynucleotide, which contains a polynucleotide portion of a plant stress-regulated gene operatively linked to

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a heterologous nucleotide sequence. As used herein, the term "polynucleotide portion of plant stress-regulated sequence" means a contiguous nucleotide sequence of the plant stress-regulated gene that provides a function. The portion can be any portion of the sequence, particularly a coding sequence, or a sequence encoding a peptide portion of the stress-regulated polypeptide; the stress-regulated regulatory element; a sequence useful as an antisense molecule or triplexing agent; or a sequence useful for disrupting (knocking-out) an endogenous plant stress-regulated gene.

A heterologous nucleotide sequence is a nucleotide sequence that is not normally part of the plant stress-regulated gene from which the polynucleotide portion of the plant stress-regulated gene-component of the recombinant polynucleotide is obtained; or, if it is a part of the plant stress-regulated gene from which the polynucleotide portion is obtained, it is an orientation other than it would normally be in, for example, is an antisense sequence, or comprises at least partially discontinuous as compared to the genomic structure, for example, a single exon operatively linked to the regulatory element. In general, where the polynucleotide portion of the plant stress-regulated gene comprises the coding sequence in a recombinant polynucleotide of the invention, the heterologous nucleotide sequence will function as a regulatory element. The regulatory element can be any heterologous regulatory element, including, for example, a constitutively active regulatory element, an inducible regulatory element, or a tissue specific or phase specific regulatory element, as disclosed above. Conversely, where the polynucleotide portion of the plant stressregulated polynucleotide comprises the stress-regulated regulatory element of a recombinant polynucleotide of the invention, the heterologous nucleotide sequence generally will be a nucleotide sequence that can be transcribed and, if desired, translated. Where the heterologous nucleotide sequence is expressed from a plant stress-regulated regulatory element, it generally confers a desirable phenotype to a plant cell containing the recombinant polynucleotide, or provides a means to identify a plant cell containing the recombinant polynucleotide. It should be recognized that a "desirable" phenotype can be one that decreases the ability of a plant cell to compete where the plant cell, or a plant containing the cell, is an undesired plant cell. Thus, a heterologous nucleotide sequence can allow a plant to grow, for example, under conditions in which it would not normally be able to grow.

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A heterologous nucleotide sequence can be, or encode, a selectable marker. As used herein, the term "selectable marker" is used herein to refer to a molecule that, when present or expressed in a plant cell, provides a means to identify a plant cell containing the marker. As such, a selectable marker can provide a means for screening a population of plants, or plant cells, to identify those having the marker. A selectable marker also can confer a selective advantage to the plant cell, or a plant containing the cell. The selective advantage can be, for example, the ability to grow in the presence of a negative selective agent such as an antibiotic or herbicide, compared to the growth of plant cells that do not contain the selectable marker. The selective advantage also can be due, for example, to an enhanced or novel capacity to utilize an added compound as a nutrient, growth factor or energy source. A selectable advantage can be conferred, for example, by a single polynucleotide, or its expression product, or to a combination of polynucleotides whose expression in a plant cell gives the cell with a positive selective advantage, a negative selective advantage, or both.

Examples of selectable markers include those that confer antimetabolite resistance, for example, dihydrofolate reductase, which confers resistance to methotrexate (Reiss, Plant Physiol. (Life Sci. Adv.) 13:143-149, 1994); neomycin phosphotransferase, which confers resistance to the aminoglycosides neomycin, kanamycin and paromycin (Herrera-Estrella, EMBO J. 2:987-995, 1983) and hygro. which confers resistance to hygromycin (Marsh, Gene 32:481-485, 1984), trpB, which allows cells to utilize indole in place of tryptophan; hisD, which allows cells to utilize histinol in place of histidine (Hartman, Proc. Natl. Acad. Sci., USA 85:8047, 1988); mannose-6-phosphate isomerase which allows cells to utilize mannose (WO 94/20627); ornithine decarboxylase, which confers resistance to the ornithine decarboxylase inhibitor, 2-(difluoromethyl)-DL-ornithine (DFMO; McConlogue, 1987, In: Current Communications in Molecular Biology, Cold Spring Harbor Laboratory ed.); and deaminase from Aspergillus terreus, which confers resistance to Blasticidin S (Tamura, Biosci. Biotechnol. Biochem. 59:2336-2338, 1995). Additional selectable markers include those that confer herbicide resistance, for 30 example, phosphinothricin acetyltransferase gene, which confers resistance to phosphinothricin (White et al., Nucl. Acids Res. 18:1062, 1990; Spencer et al., Theor. Appl. Genet. 79:625-631, 1990), a mutant EPSPV-synthase, which confers glyphosate

resistance (Hinchee et al., <u>Bio/Technology</u> 91:915-922, 1998), a mutant acetolactate synthase, which confers imidazolione or sulfonylurea resistance (Lee et al., <u>EMBO J.</u> 7:1241-1248, 1988), a mutant psbA, which confers resistance to atrazine (Smeda et al., <u>Plant Physiol.</u> 103:911-917, 1993), or a mutant protoporphyrinogen oxidase (see U.S. Pat. No. 5,767,373), or other markers conferring resistance to an herbicide such as glufosinate. In addition, markers that facilitate identification of a plant cell containing the polynucleotide encoding the marker include, for example, luciferase (Giacomin, <u>Plant Sci.</u> 116:59-72, 1996; Scikantha, <u>J. Bacteriol.</u> 178:121, 1996), green fluorescent protein (Gerdes, <u>FEBS Lett.</u> 389:44-47, 1996) or fl-glucuronidase (Jefferson, <u>EMBO J.</u> 6:3901-3907, 1997), and numerous others as disclosed herein or otherwise known in the art. Such markers also can be used as reporter molecules.

A heterologous nucleotide sequence can encode an antisense molecule, particularly an antisense molecule specific for a nucleotide sequence of a plant stress-regulated gene, for example, the gene from which the regulatory component of the recombinant polynucleotide is derived. Such a recombinant polynucleotide can be useful for reducing the expression of a plant stress-regulated polypeptide in response to a stress condition because the antisense molecule, like the polypeptide, only will be induced upon exposure to the stress. A heterologous nucleotide sequence also can be, or can encode, a ribozyme or a triplexing agent. In addition to being useful as heterologous nucleotide sequences, such molecules also can be used directly in a method of the invention, for example, to modulate the responsiveness of a plant cell to a stress condition. Thus, an antisense molecule, ribozyme, or triplexing agent can be contacted directly with a target cell and, upon uptake by the cell, can effect their antisense, ribozyme or triplexing activity; or can be encoded by a heterologous nucleotide sequence that is expressed in a plant cell from a plant stress-regulated regulatory element, whereupon it can effect its activity.

An antisense polynucleotide, ribozyme or triplexing agent is complementary to a target sequence, which can be a DNA or RNA sequence, for example, messenger RNA, and can be a coding sequence, a nucleotide sequence comprising an intron-exon junction, a regulatory sequence such as a Shine-Delgarno-like sequence, or the like. The degree of complementarity is such that the polynucleotide, for example, an antisense polynucleotide, can interact specifically with the target sequence in a cell.

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Depending on the total length of the antisense or other polynucleotide, one or a few mismatches with respect to the target sequence can be tolerated without losing the specificity of the polynucleotide for its target sequence. Thus, few if any mismatches would be tolerated in an antisense molecule consisting, for example, of twenty nucleotides, whereas several mismatches will not affect the hybridization efficiency of an antisense molecule that is complementary, for example, to the full length of a target mRNA encoding a cellular polypeptide. The number of mismatches that can be tolerated can be estimated, for example, using well known formulas for determining hybridization kinetics (see Sambrook et al., "Molecular Cloning; A Laboratory Manual" 2nd Edition (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY; 1989)) or can be determined empirically using methods as disclosed herein or otherwise known in the art, particularly by determining that the presence of the antisense polynucleotide, ribozyme, or triplexing agent in a cell decreases the level of the target sequence or the expression of a polypeptide encoded by the target sequence in the cell.

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A nucleotide sequence useful as an antisense molecule, a ribozyme or a triplexing agent can inhibit translation or cleave a polynucleotide encoded by plant stress-regulated gene, thereby modulating the responsiveness of a plant cell to a stress condition. An antisense molecule, for example, can bind to an mRNA to form a double stranded molecule that cannot be translated in a cell. Antisense oligonucleotides of at least about 15 to 25 nucleotides are preferred since they are easily synthesized and can hybridize specifically with a target sequence, although longer antisense molecules can be expressed from a recombinant polynucleotide introduced into the target cell. Specific nucleotide sequences useful as antisense molecules can be identified using well known methods, for example, gene walking methods (see, for example, Seimiya et al., J. Biol. Chem. 272:4631-4636 (1997), which is incorporated herein by reference). Where the antisense molecule is contacted directly with a target cell, it can be operatively associated with a chemically reactive group such as iron-linked EDTA, which cleaves a target RNA at the site of hybridization. A triplexing agent, in comparison, can stall transcription (Maher et al., Antisense Res. Devel. 1:227 (1991); Helene, Anticancer Drug Design 6:569 (1991)).

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A plant stress-regulated regulatory element can be included in an expression cassette. As used herein, the term "expression cassette" refers to a nucleotide sequence that can direct expression of an operatively linked polynucleotide. Thus, a plant stress-regulated regulatory element can constitute an expression cassette, or component thereof. An expression cassette is particularly useful for directing expression of a nucleotide sequence, which can be an endogenous nucleotide sequence or a heterologous nucleotide sequence, in a cell, particularly a plant cell. If desired, an expression cassette also can contain additional regulatory elements, for example, nucleotide sequences required for proper translation of a polynucleotide sequence into a polypeptide. In general, an expression cassette can be introduced into a plant cell such that the plant cell, a plant resulting from the plant cell, seeds obtained from such a plant, or plants produced from such seeds are resistant to a stress condition.

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Additional regulatory sequences as disclosed above or other desirable sequences such as selectable markers or the like can be incorporated into an expression cassette containing a plant stress-regulated regulatory element (see, for example, WO 99/47552). Examples of suitable markers include dihydrofolate reductase (DHFR) or neomycin resistance for eukaryotic cells and tetracycline or ampicillin resistance for E. coli. Selection markers in plants include bleomycin, gentamycin, glyphosate, hygromycin, kanamycin, methotrexate, phleomycin, phosphinotricin, spectinomycin, streptomycin, sulfonamide and sulfonylureas resistance (see, for example, Maliga et al., Methods in Plant Molecular Biology, Cold Spring Harbor Laboratory Press, 1995, page 39). The selection marker can have its own promoter or its expression can be driven by the promoter operably linked to the sequence of interest. Additional sequences such as intron sequences (e.g. from Adh1 or bronzel) or viral leader sequences (e.g. from TMV, MCMV and AIVIV), all of which can enhance expression, can be included in the cassette. In addition, where it is desirable to target expression of a nucleotide sequence operatively linked to the stressregulated regulatory element, a sequence encoding a cellular localization motif can be included in the cassette, for example, such that an encoded transcript or translation product is translocated to and localizes in the cytosol, nucleus, a chloroplast, or another subcellular organelle. Examples of useful transit peptides and transit peptide

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sequences can be found in Von Heijne et al., <u>Plant Mol. Biol. Rep. 9</u>: 104, 1991; Clark et al., <u>J. Biol. Chem.</u> 264:17544, 1989; della Cioppa et al., <u>Plant Physiol.</u> 84:965, 1987; Romer et al., <u>Biochem. Biophys. Res. Comm.</u> 196:1414, 1993; Shah et al., <u>Science</u> 233:478, 1986; Archer et al., <u>J. Bioenerg Biomemb.</u> 22:789, 1990; Scandalios, <u>Prog. Clin. Biol. Res.</u> 344:515, 1990; Weisbeek et al., <u>J. Cell Sci. Suppl.</u> 11:199, 1989; Bruce, <u>Trends Cell Biol.</u> 10:440, 2000. The present invention can utilize native or heterologous transit peptides. The encoding sequence for a transit peptide can include all or a portion of the encoding sequence for a particular transit peptide, and may also contain portions of the mature protein encoding sequence associated with a particular transit peptide.

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A polynucleotide portion of a plant stress-regulated plant gene, or an expression cassette, can be introduced into a cell as a naked DNA molecule, can be incorporated in a matrix such as a liposome or a particle such as a viral particle, or can be incorporated into a vector. Such vectors can be cloning or expression vectors, but other uses are within the scope of the present invention. A cloning vector is a selfreplicating DNA molecule that serves to transfer a DNA segment into a host cell. The three most common types of cloning vectors are bacterial plasmids, phages, and other viruses. An expression vector is a cloning vector designed so that a coding sequence inserted at a particular site will be transcribed and translated into a protein. Incorporation of the polynucleotide into a vector can facilitate manipulation of the polynucleotide, or introduction of the polynucleotide into a plant cell. A vector can be derived from a plasmid or a viral vector such as a T-DNA vector (Horsch et al., Science 227:1229-1231, 1985, which is incorporated herein by reference). If desired, the vector can comprise components of a plant transposable element, for example, a Ds transposon (Bancroft and Dean, Genetics 134:1221-1229, 1993, which is incorporated herein by reference) or an Spm transposon (Aarts et al., Mol. Gen. Genet. 247:555-564, 1995, which is incorporated herein by reference).

In addition to containing the polynucleotide portion of a plant stress-regulated gene, a vector can contain various nucleotide sequences that facilitate, for example, rescue of the vector from a transformed plant cell; passage of the vector in a host cell, which can be a plant, animal, bacterial, or insect host cell; or expression of an encoding nucleotide sequence in the vector, including all or a portion of a rescued

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coding region. As such, the vector can contain any of a number of additional transcription and translation elements, including constitutive and inducible promoters, enhancers, and the like (see, for example, Bitter et al., Meth. Enzymol. 153:516-544, 1987). For example, a vector can contain elements useful for passage, growth or expression in a bacterial system, including a bacterial origin of replication; a promoter, which can be an inducible promoter; and the like. In comparison, a vector that can be passaged in a mammalian host cell system can have a promoter such as a metallothionein promoter, which has characteristics of both a constitutive promoter and an inducible promoter, or a viral promoter such as a retrovirus long terminal repeat, an adenovirus late promoter, or the like. A vector also can contain one or more restriction endonuclease recognition and cleavage sites, including, for example, a polylinker sequence, to facilitate rescue of a nucleotide sequence operably linked to the polynucleotide portion.

The present invention also relates to a method of using a polynucleotide portion of a plant stress-regulated gene to confer a selective advantage on a plant cell. Such a method can be performed by introducing, for example, a plant stress-regulated regulatory element into a plant cell, wherein, upon exposure of the plant cell to a stress condition to which the regulatory element is responsive, a nucleotide sequence operatively linked to the regulatory element is expressed, thereby conferring a selective advantage to plant cell. The operatively linked nucleotide sequence can be a heterologous nucleotide sequence, which can be operatively linked to the regulatory element prior to introduction of the regulatory sequence into the plant cell; or can be an endogenous nucleotide sequence into which the regulatory element was targeted by a method such as homologous recombination. The selective advantage conferred by the operatively linked nucleotide sequence can be such that the plant is better able to tolerate the stress condition; or can be any other selective advantage.

As used herein, the term "selective advantage" refers to the ability of a particular organism to better propagate, develop, grow, survive, or otherwise tolerate a condition as compared to a corresponding reference organism that does not contain a plant-stress regulated polynucleotide portion of the present invention. In one embodiment, a selective advantage is exemplified by the ability of a desired plant, plant cell, or the like, that contains an introduced plant stress-regulated regulatory

57

element, to grow better than an undesired plant, plant cell, or the like, that does not contain the introduced regulatory element. For example, a recombinant polynucleotide comprising a plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence encoding an enzyme that inactivates an herbicide can be introduced in a desired plant. Upon exposure of a mixed population of plants comprising the desired plants, which contain the recombinant polynucleotide, and one or more other populations of undesired plants, which lack the recombinant polynucleotide, to a stress condition that induces expression of the regulatory element and to the herbicide, the desired plants will have a greater likelihood of surviving exposure to the toxin and, therefore, a selective advantage over the undesired plants.

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In another embodiment, a selective advantage is exemplified by the ability of a desired plant, plant cell, or the like, to better propagate, develop, grow, survive, or otherwise tolerate a condition as compared to an undesired plant, plant cell, or the like, that contains an introduced plant stress-regulated regulatory element. For example, a recombinant polynucleotide comprising a plant stress-regulated regulatory element operatively linked to a plant cell toxin can be introduced into cells of an undesirable plant present in a mixed population of desired and undesired plants, for example, food crops and weeds, respectively, then the plants can be exposed to stress conditions that induce expression from the plant stress-regulated regulatory element, whereby expression of the plant cell toxin results in inhibition of growth or death of the undesired plants, thereby providing a selective advantage to the desired plants, which no longer have to compete with the undesired plants for nutrients, light, or the like. In another example, a plant stress-regulated regulatory element operatively linked to a plant cell toxin can be introduced into cells of plants used as a nurse crop. Nurse crops, also called cover or companion crops, are planted in combination with plants of interest to provide, among other things, shade and soil stability during establishment of the desired plants. Once the desired plants have become established, the presence of the nurse crop may no longer be desirable. Exposure to conditions inducing expression of the gene linked to the plant stress-regulated regulatory element allows elimination of the nurse crop. Alternatively nurse crops can be made less tolerate to abiotic stress by the inhibition of any of the stress-regulated sequences

58

disclosed herein. Inhibition can be accomplished by any of the method described herein. Upon exposure of the nurse crop to the stress, the decreased ability of the nurse crop to respond to the stress will result in elimination of the nurse crop, leaving only the desired plants.

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The invention also provides a means of producing a transgenic plant, which comprises plant cells that exhibit altered responsiveness to a stress condition. As such, the present invention further provides a transgenic plant, or plant cells or tissues derived therefrom, which are genetically modified to respond to stress differently than a corresponding wild-type plant or plant not containing constructs of the present invention would respond. As used herein, the term "responsiveness to a stress condition" refers to the ability of a plant to express a plant stress-regulated gene upon exposure to the stress condition. A transgenic plant cell contains a polypeptide portion of a plant stress-regulated gene, or a mutant form thereof, for example, a knock-out mutant. A knock-out mutant form of a plant stress-regulated gene can contain, for example, a mutation such that a STOP codon is introduced into the reading frame of the translated portion of the gene such that expression of a functional stress-regulated polypeptide is prevented; or a mutation in the stress-regulated regulatory element such that inducibility of the element in response to a stress condition is inhibited. Such transgenic plants of the invention can display any of various idiotypic modifications is response to an abiotic stress, including altered tolerance to the stress condition, as well as increased or decreased plant growth, root growth, yield, or the like, as compared to the corresponding wild-type plant.

The term "plant" is used broadly herein to include any plant at any stage of development, or to part of a plant, including a plant cutting, a plant cell, a plant cell culture, a plant organ, a plant seed, and a plantlet. A plant cell is the structural and physiological unit of the plant, comprising a protoplast and a cell wall. A plant cell can be in the form of an isolated single cell or a cultured cell, or can be part of higher organized unit, for example, a plant tissue, plant organ, or plant. Thus, a plant cell can be a protoplast, a gamete producing cell, or a cell or collection of cells that can regenerate into a whole plant. As such, a seed, which comprises multiple plant cells and is capable of regenerating into a whole plant, is considered plant cell for purposes of this disclosure. A plant tissue or plant organ can be a seed, protoplast, callus, or

59

any other groups of plant cells that is organized into a structural or functional unit. Particularly useful parts of a plant include harvestable parts and parts useful for propagation of progeny plants. A harvestable part of a plant can be any useful part of a plant, for example, flowers, pollen, seedlings, tubers, leaves, stems, fruit, seeds, roots, and the like. A part of a plant useful for propagation includes, for example, seeds, fruits, cuttings, seedlings, tubers, rootstocks, and the like.

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A transgenic plant can be regenerated from a transformed plant cell. As used herein, the term "regenerate" means growing a whole plant from a plant cell; a group of plant cells; a protoplast; a seed; or a piece of a plant such as a callus or tissue. Regeneration from protoplasts varies from species to species of plants. For example, a suspension of protoplasts can be made and, in certain species, embryo formation can be induced from the protoplast suspension, to the stage of ripening and germination. The culture media generally contains various components necessary for growth and regeneration, including, for example, hormones such as auxins and cytokinins; and amino acids such as glutamic acid and proline, depending on the particular plant species. Efficient regeneration will depend, in part, on the medium, the genotype, and the history of the culture. If these variables are controlled, however, regeneration is reproducible.

Regeneration can occur from plant callus, explants, organs or plant parts. Transformation can be performed in the context of organ or plant part regeneration. (see Meth. Enzymol. Vol. 118; Klee et al. Ann. Rev. Plant Physiol. 38:467, 1987, which is incorporated herein by reference). Utilizing the leaf disk-transformation-regeneration method, for example, disks are cultured on selective media, followed by shoot formation in about two to four weeks (see Horsch et al., supra, 1985). Shoots that develop are excised from calli and transplanted to appropriate root-inducing selective medium. Rooted plantlets are transplanted to soil as soon as possible after roots appear. The plantlets can be repotted as required, until reaching maturity.

In vegetatively propagated crops, the mature transgenic plants are propagated utilizing cuttings or tissue culture techniques to produce multiple identical plants. Selection of desirable transgenotes is made and new varieties are obtained and propagated vegetatively for commercial use. In seed propagated crops, the mature transgenic plants can be self crossed to produce a homozygous inbred plant. The

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resulting inbred plant produces seeds that contain the introduced plant stress-induced regulatory element, and can be grown to produce plants that express a polynucleotide or polypeptide in response to a stress condition that induces expression from the regulatory element. As such, the invention further provides seeds produced by a transgenic plant obtained by a method of the invention.

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In addition, transgenic plants comprising different recombinant sequences can be crossbred, thereby providing a means to obtain transgenic plants containing two or more different transgenes, each of which contributes a desirable characteristic to the plant. Methods for breeding plants and selecting for crossbred plants having desirable characteristics or other characteristics of interest are well known in the art.

A method of the invention can be performed by introducing a polynucleotide portion of a plant stress-regulated gene into the plant. As used herein, the term "introducing" means transferring a polynucleotide into a plant cell. A polynucleotide can be introduced into a cell by a variety of methods well known to those of ordinary skill in the art. For example, the polynucleotide can be introduced into a plant cell using a direct gene transfer method such as electroporation or microprojectile mediated transformation, or using Agrobacterium mediated transformation. Non-limiting examples of methods for the introduction of polynucleotides into plants are provided in greater detail herein. As used herein, the term "transformed" refers to a plant cell containing an exogenously introduced polynucleotide portion of a plant stress-regulated gene that is or can be rendered active in a plant cell, or to a plant comprising a plant cell containing such a polynucleotide.

It should be recognized that one or more polynucleotides, which are the same or different can be introduced into a plant, thereby providing a means to obtain a genetically modified plant containing multiple copies of a single transgenic sequence, or containing two or more different transgenic sequences, either or both of which can be present in multiple copies. Such transgenic plants can be produced, for example, by simply selecting plants having multiple copies of a single type of transgenic sequence; by cotransfecting plant cells with two or more populations of different transgenic sequences and identifying those containing the two or more different transgenic sequences; or by crossbreeding transgenic plants, each of which contains

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one or more desired transgenic sequences, and identifying those progeny having the desired sequences.

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Methods for introducing a polynucleotide into a plant cell to obtain a transformed plant also include direct gene transfer (see European Patent A 164 575), injection, electroporation, biolistic methods such as particle bombardment, pollenmediated transformation, plant RNA virus-mediated transformation, liposomemediated transformation, transformation using wounded or enzyme-degraded immature embryos, or wounded or enzyme-degraded embryogenic callus, and the like. Transformation methods using Agrobacterium tumefaciens tumor inducing (Ti) plasmids or root-inducing (Ri) plasmids, or plant virus vectors are well known in the art (see, for example, WO 99/47552; Weissbach & Weissbach, "Methods for Plant Molecular Biology" (Academic Press, NY 1988), section VIII, pages 421-463; Grierson and Corey, "Plant Molecular Biology" 2d Ed. (Blackie, London 1988), Chapters 7-9, each of which is incorporated herein by reference; Horsch et al., supra, 1985). The wild-type form of Agrobacterium, for example, contains a Ti plasmid, which directs production of tumorigenic crown gall growth on host plants. Transfer of the tumor inducing T-DNA region of the Ti plasmid to a plant genome requires the Ti plasmid-encoded virulence genes as well as T-DNA borders, which are a set of direct DNA repeats that delineate the region to be transferred. An Agrobacterium based vector is a modified form of a Ti plasmid, in which the tumor inducing functions are replaced by a nucleotide sequence of interest that is to be introduced into the plant host.

Methods of using Agrobacterium mediated transformation include cocultivation of Agrobacterium with cultured isolated protoplasts; transformation of plant cells or tissues with Agrobacterium; and transformation of seeds, apices or meristems with Agrobacterium. In addition, in planta transformation by Agrobacterium can be performed using vacuum infiltration of a suspension of Agrobacterium cells (Bechtold et al., C.R. Acad. Sci. Paris 316:1194, 1993, which is incorporated herein by reference).

Agrobacterium mediated transformation can employ cointegrate vectors or binary vector systems, in which the components of the Ti plasmid are divided between a helper vector, which resides permanently in the Agrobacterium host and carries the

virulence genes, and a shuttle vector, which contains the gene of interest bounded by T-DNA sequences. Binary vectors are well known in the art (see, for example, De Framond, BioTechnology 1:262, 1983; Hoekema et al., Nature 303:179, 1983, each of which is incorporated herein by reference) and are commercially available (Clontech; Palo Alto CA). For transformation, Agrobacterium can be cocultured, for example, with plant cells or wounded tissue such as leaf tissue, root explants, hypocotyledons, stem pieces or tubers (see, for example, Glick and Thompson, "Methods in Plant Molecular Biology and Biotechnology" (Boca Raton FL, CRC Press 1993), which is incorporated herein by reference). Wounded cells within the plant tissue that have been infected by Agrobacterium can develop organs de novo when cultured under the appropriate conditions; the resulting transgenic shoots eventually give rise to transgenic plants, which contain an exogenous polynucleotide portion of a plant stress-regulated gene.

Agrobacterium mediated transformation has been used to produce a variety of transgenic plants, including, for example, transgenic cruciferous plants such as Arabidopsis, mustard, rapeseed and flax; transgenic leguminous plants such as alfalfa, pea, soybean, trefoil and white clover; and transgenic solanaceous plants such as eggplant, petunia, potato, tobacco and tomato (see, for example, Wang et al., "Transformation of Plants and Soil Microorganisms" (Cambridge, University Press 1995), which is incorporated herein by reference). In addition, Agrobacterium mediated transformation can be used to introduce an exogenous polynucleotide sequence, for example, a plant stress-regulated regulatory element into apple, aspen, belladonna, black currant, carrot, celery, cotton, cucumber, grape, horseradish, lettuce, morning glory, muskmelon, neem, poplar, strawberry, sugar beet, sunflower, walnut, asparagus, rice and other plants (see, for example, Glick and Thompson, supra, 1993; Hiei et al., Plant J. 6:271-282, 1994; Shimamoto, Science 270:1772-1773, 1995).

Suitable strains of Agrobacterium tumefaciens and vectors as well as transformation of Agrobacteria and appropriate growth and selection media are well known in the art (GV3101, pMK90RK), Koncz, Mol. Gen. Genet. 204:383-396, 1986; (C58C1, pGV3850kan), Deblaere, Nucl. Acid Res. 13:4777, 1985; Bevan, Nucl. Acid Res. 12:8711, 1984; Koncz, Proc. Natl. Acad. Sci. USA 86:8467-8471, 1986; Koncz, Plant Mol. Biol. 20:963-976, 1992; Koncz, Specialized vectors for gene tagging and

63

expression studies. In: Plant Molecular Biology Manual Vol. 2, Gelvin and Schilperoort (Eds.), Dordrecht, The Netherlands: Kluwer Academic Publ. (1994), 1-22; European Patent A-1 20 516; Hoekema: The Binary Plant Vector System, Offsetdrukkerij Kanters B. V., Alblasserdam (1985), Chapter V; Fraley, Crit. Rev. Plant. Sci., 4:1-46; An, EMBO J. 4:277-287, 1985).

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Where a polynucleotide portion of a plant stress-regulated gene is contained in vector, the vector can contain functional elements, for example "left border" and "right border" sequences of the T-DNA of *Agrobacterium*, which allow for stable integration into a plant genome. Furthermore, methods and vectors that permit the generation of marker-free transgenic plants, for example, where a selectable marker gene is lost at a certain stage of plant development or plant breeding, are known, and include, for example, methods of co-transformation (Lyznik, Plant Mol. Biol. 13:151-161, 1989; Peng, Plant Mol. Biol. 27:91-104, 1995), or methods that utilize enzymes capable of promoting homologous recombination in plants (see, e.g., W097/08331; Bayley, Plant Mol. Biol. 18:353-361, 1992; Lloyd, Mol. Gen. Genet. 242:653-657, 1994; Maeser, Mol. Gen. Genet. 230:170-176, 1991; Onouchi, Nucl. Acids Res. 19:6373-6378, 1991; see, also, Sambrook et al., supra, 1989).

A direct gene transfer method such as electroporation also can be used to introduce a polynucleotide portion of a plant stress-regulated gene into a cell such as a plant cell. For example, plant protoplasts can be electroporated in the presence of the regulatory element, which can be in a vector (Fromm et al., Proc. Natl. Acad. Sci., USA 82:5824, 1985, which is incorporated herein by reference). Electrical impulses of high field strength reversibly permeabilize membranes allowing the introduction of the nucleic acid. Electroporated plant protoplasts reform the cell wall, divide and form a plant callus. Microinjection can be performed as described in Potrykus and Spangenberg (eds.), Gene Transfer To Plants (Springer Verlag, Berlin, NY 1995). A transformed plant cell containing the introduced polynucleotide can be identified by detecting a phenotype due to the introduced polynucleotide, for example, increased or decreased tolerance to a stress condition.

Microprojectile mediated transformation also can be used to introduce a polynucleotide into a plant cell (Klein et al., <u>Nature</u> 327:70-73, 1987, which is incorporated herein by reference). This method utilizes microprojectiles such as gold

64

or tungsten, which are coated with the desired nucleic acid molecule by precipitation with calcium chloride, spermidine or polyethylene glycol. The microprojectile particles are accelerated at high speed into a plant tissue using a device such as the BIOLISTIC PD-1000 (BioRad; Hercules CA).

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Microprojectile mediated delivery ("particle bombardment") is especially useful to transform plant cells that are difficult to transform or regenerate using other methods. Methods for the transformation using biolistic methods are well known (Wan, Plant Physiol. 104:37-48, 1984; Vasil, Bio/Technology 11:1553-1558, 1993; Christou, Trends in Plant Science 1:423-431, 1996). Microprojectile mediated transformation has been used, for example, to generate a variety of transgenic plant species, including cotton, tobacco, corn, hybrid poplar and papaya (see Glick and Thompson, supra, 1993). Important cereal crops such as wheat, oat, barley, sorghum and rice also have been transformed using microprojectile mediated delivery (Duan et al., Nature Biotech. 14:494-498, 1996; Shimamoto, Curr. Opin. Biotech. 5:158-162, 1994). A rapid transformation regeneration system for the production of transgenic plants such as a system that produces transgenic wheat in two to three months (see European Patent No. EP 0709462A2, which is incorporated herein by reference) also can be useful for producing a transgenic plant using a method of the invention, thus allowing more rapid identification of gene functions. The transformation of most dicotyledonous plants is possible with the methods described above. Transformation of monocotyledonous plants also can be transformed using, for example, biolistic methods as described above, protoplast transformation, electroporation of partially permeabilized cells, introduction of DNA using glass fibers, Agrobacterium mediated transformation, and the like.

Plastid transformation also can be used to introduce a polynucleotide portion of a plant stress-regulated gene into a plant cell (U.S. Patent Nos. 5,451,513, 5,545,817, and 5,545,818; WO 95/16783; McBride et al., Proc. Natl. Acad. Sci., USA 91:7301-7305, 1994). Chloroplast transformation involves introducing regions of cloned plastid DNA flanking a desired nucleotide sequence, for example, a selectable marker together with polynucleotide of interest into a suitable target tissue, using, for example, a biolistic or protoplast transformation method (e.g., calcium chloride or PEG mediated transformation). One to 1.5 kb flanking regions ("targeting

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sequences") facilitate homologous recombination with the plastid genome, and allow the replacement or modification of specific regions of the plastome. Using this method, point mutations in the chloroplast 16S rRNA and rps12 genes, which confer resistance to spectinomycin and streptomycin, can be utilized as selectable markers for transformation (Svab et al., Proc. Natl. Acad. Sci., USA 87:8526-8530, 1990; Staub and Maliga, Plant Cell 4:39-45, 1992), resulted in stable homopiasmic transformants; at a frequency of approximately one per 100 bombardments of target leaves. The presence of cloning sites between these markers allowed creation of a plastid targeting vector for introduction of foreign genes (Staub and Maliga, EMBO J. 12:601-606, 1993). Substantial increases in transformation frequency are obtained by replacement of the recessive rRNA or r-protein antibiotic resistance genes with a dominant selectable marker, the bacterial aadA gene encoding the spectinomycindetoxifying enzyme aminoglycoside-3'-adenyltransf erase (Svab and Maliga, Proc. Natl. Acad. Sci., USA 90:913-917, 1993). Approximately 15 to 20 cell division cycles following transformation are generally required to reach a homoplastidic state. Plastid expression, in which genes are inserted by homologous recombination into all of the several thousand copies of the circular plastid genome present in each plant cell, takes advantage of the enormous copy number advantage over nuclear-expressed genes to permit expression levels that can readily exceed 10% of the total soluble plant protein.

Plants suitable to treatment according to a method of the invention can be monocots or dicots and include, but are not limited to, corn (Zea mays), Brassica sp. (e.g., B. napus, B. rapa, B. juncea), particularly those Brassica species useful as sources of seed oil, alfalfa (Medicago sativa), rice (Oryza sativa), rye (Secale cereale), sorghum (Sorghum bicolor, Sorghum vulgare), millet (e.g., pearl millet (Pennisetum glaucum), proso millet (Panicum miliaceum), foxtail millet (Setaria italica), finger millet (Eleusine coracana)), sunflower (Helianthus annuus), safflower (Carthamus tinctorius), wheat (Triticum aestivum), soybean (Glycine max), tobacco (Nicotiana tabacum), potato (Solanum tuberosum), peanuts (Arachis hypogaea), cotton (Gossypium barbadense, Gossypium hirsutum), sweet potato (Ipomoea batatus), cassava (Manihot esculenta), coffee (Cofea spp.), coconut (Cocos nucifera), pineapple (Ananas comosus), citrus trees (Citrus spp.), cocoa (Theobroma cacao), tea

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(Camellia sinensis), banana (Musa spp.), avocado (Persea ultilane), fig (Ficus casica), guava (Psidium guajava), mango (Mangifera indica), olive (Olea europaea), papaya (Carica papaya), cashew (Anacardium occidentale), macadamia (Macadamia integrifolia), almond (Prunus amygdalus), sugar beets (Beta vulgaris), sugarcane (Saccharum spp.), oats, duckweed (Lemna), barley, tomatoes (Lycopersicon esculentum), lettuce (e.g., Lactuca sativa), green beans (Phaseolus vulgaris), lima beans (Phaseolus limensis), peas (Lathyrus spp.), and members of the genus Cucumis such as cucumber (C. sativus), cantaloupe (C. cantalupensis), and musk melon (C. melo).

Ornamentals such as azalea (*Rhododendron* spp.), hydrangea (*Macrophylla hydrangea*), hibiscus (*Hibiscus rosasanensis*), roses (*Rosa* spp.), tulips (*Tulipa* spp.), daffodils (*Narcissus* spp.), petunias (*Petunia hybrida*), carnation (*Dianthus caryophyllus*), poinsettia (*Euphorbia pulcherrima*), and chrysanthemum are also included. Additional ornamentals within the scope of the invention include impatiens, Begonia, Pelargonium, Viola, Cyclamen, Verbena, Vinca, Tagetes, Primula, Saint Paulia, Agertum, Amaranthus, Antihirrhinum, Aquilegia, Cineraria, Clover, Cosmo, Cowpea, Dahlia, Datura, Delphinium, Gerbera, Gladiolus, Gloxinia, Hippeastrum, Mesembryanthemum, Salpiglossos, and Zinnia.

Conifers that may be employed in practicing the present invention include, for example, pines such as loblolly pine (*Pinus taeda*), slash pine (*Pinus elliotii*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), and Monterey pine (*Pinus radiata*), Douglas-fir (*Pseudotsuga menziesii*); Western hemlock (*Tsuga ultilane*); Sitka spruce (*Picea glauca*); redwood (*Sequoia sempervirens*); true firs such as silver fir (*Abies amabilis*) and balsam fir (*Abies balsamea*); and cedars such as Western red cedar (*Thuja plicata*) and Alaska yellow-cedar (*Chamaecyparis nootkatensis*).

Leguminous plants which may be used in the practice of the present invention include beans and peas. Beans include guar, locust bean, fenugreek, soybean, garden beans, cowpea, mungbean, lima bean, fava bean, lentils, chickpea, etc. Legumes include, but are not limited to, *Arachis*, e.g., peanuts, *Vicia*, e.g., crown vetch, hairy vetch, adzuki bean, mung bean, and chickpea, *Lupinus*, e.g., lupine, trifolium, *Phaseolus*, e.g., common bean and lima bean, *Pisum*, e.g., field bean, *Melilotus*, e.g.,

clover, *Medicago*, e.g., alfalfa, Lotus, e.g., trefoil, lens, e.g., lentil, and false indigo. Preferred forage and turf grass for use in the methods of the invention include alfalfa, orchard grass, tall fescue, perennial ryegrass, creeping bent grass, and redtop. Other plants within the scope of the invention include *Acacia*, aneth, artichoke, arugula, blackberry, canola, cilantro, clementines, escarole, eucalyptus, fennel, grapefruit, honey dew, jicama, kiwifruit, lemon, lime, mushroom, nut, okra, orange, parsley, persimmon, plantain, pomegranate, poplar, radiata pine, radicchio, Southern pine, sweetgum, tangerine, triticale, vine, yams, apple, pear, quince, cherry, apricot, melon, hemp, buckwheat, grape, raspberry, chenopodium, blueberry, nectarine, peach, plum, strawberry, watermelon, eggplant, pepper, cauliflower, Brassica, e.g., broccoli, cabbage, ultilan sprouts, onion, carrot, leek, beet, broad bean, celery, radish, pumpkin, endive, gourd, garlic, snapbean, spinach, squash, turnip, ultilane, chicory, groundnut and zucchini.

Angiosperms are divided into two broad classes based on the number of cotyledons, which are seed leaves that generally store or absorb food; a monocotyledonous angiosperm has a single cotyledon, and a dicotyledonous angiosperm has two cotyledons. Angiosperms produce a variety of useful products including materials such as lumber, rubber, and paper; fibers such as cotton and linen; herbs and medicines such as quinine and vinblastine; ornamental flowers such as roses and orchids; and foodstuffs such as grains, oils, fruits and vegetables.

Angiosperms encompass a variety of flowering plants, including, for example, cereal plants, leguminous plants, oilseed plants, hardwood trees, fruit-bearing plants and ornamental flowers, which general classes are not necessarily exclusive. Cereal plants, which produce an edible grain cereal, include, for example, corn, rice, wheat, barley, oat, rye, orchardgrass, guinea grass, sorghum and turfgrass. Leguminous plants include members of the pea family (*Fabaceae*) and produce a characteristic fruit known as a legume. Examples of leguminous plants include, for example, soybean, pea, chickpea, moth bean, broad bean, kidney bean, lima bean, lentil, cowpea, dry bean, and peanut, as well as alfalfa, birdsfoot trefoil, clover and sainfoin. Oilseed plants, which have seeds that are useful as a source of oil, include soybean, sunflower, rapeseed (canola) and cottonseed.

68

Angiosperms also include hardwood trees, which are perennial woody plants that generally have a single stem (trunk). Examples of such trees include alder, ash, aspen, basswood (linden), beech, birch, cherry, cottonwood, elm, eucalyptus, hickory, locust, maple, oak, persimmon, poplar, sycamore, walnut, sequoia, and willow. Trees are useful, for example, as a source of pulp, paper, structural material and fuel.

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Angiosperms are fruit-bearing plants that produce a mature, ripened ovary, which generally contains seeds. A fruit can be suitable for human or animal consumption or for collection of seeds to propagate the species. For example, hops are a member of the mulberry family that are prized for their flavoring in malt liquor. Fruit-bearing angiosperms also include grape, orange, lemon, grapefruit, avocado, date, peach, cherry, olive, plum, coconut, apple and pear trees and blackberry, blueberry, raspberry, strawberry, pineapple, tomato, cucumber and eggplant plants. An ornamental flower is an angiosperm cultivated for its decorative flower. Examples of commercially important ornamental flowers include rose, orchid, lily, tulip and chrysanthemum, snapdragon, camellia, carnation and petunia plants. The skilled artisan will recognize that the methods of the invention can be practiced using these or other angiosperms, as desired, as well as gymnosperms, which do not produce seeds in a fruit.

A method of producing a transgenic plant can be performed by introducing a polynucleotide portion of plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the piant cell to a stress condition, thereby producing a transgenic plant, which comprises plant cells that exhibit altered responsiveness to the stress condition. In one embodiment, the polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof, wherein expression of the stress-regulated polypeptide or functional peptide portion thereof either increases the stress tolerance of the transgenic plant, or decreases the stress tolerance of the transgenic plant. The polynucleotide portion of the plant stress-regulated gene encoding the stress-regulated polypeptide or functional peptide portion thereof can be operatively linked to a heterologous promoter.

In another embodiment, the polynucleotide portion of the plant stressregulated gene comprises a stress-regulated regulatory element. The stress-regulated

regulatory element can integrate into the plant cell genome in a site-specific manner, whereupon it can be operatively linked to an endogenous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element; or can be a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stress-regulated gene to the stress condition. Accordingly, the invention also provides genetically modified plants, including transgenic plants, produced by such a method, and a plant cell obtained from such genetically modified plant, wherein said plant cell exhibits altered responsiveness to the stress condition; a seed produced by a transgenic plant; and a cDNA library prepared from a transgenic plant.

Also provided is a method of modulating the responsiveness of a plant cell to a stress condition. Such a method can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, thereby modulating the responsiveness of the plant cell to a stress condition. As disclosed herein, the responsiveness of the plant cell can be increased or decreased upon exposure to the stress condition, and the altered responsiveness can result in increased or decreased tolerance of the plant cell to a stress condition. The polynucleotide portion of the plant stress-regulated gene can, but need not, be integrated into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition. Accordingly, the invention also provide a genetically modified plant, including a transgenic plant, which contains an introduced polynucleotide portion of a plant stress-regulated gene, as well as plant cells, tissues, and the like, which exhibit modulated responsiveness to a stress condition.

The polynucleotide portion of the plant stress-regulated gene can encode a stress-regulated polypeptide or functional peptide portion thereof, which can be operatively linked to a heterologous promoter. As used herein, reference to a "functional peptide portion of a plant stress-regulated polypeptide" means a contiguous amino acid sequence of the polypeptide that has an activity of the full length polypeptide, or that has an antagonist activity with respect to the full length polypeptide, or that presents an epitope unique to the polypeptide. Thus, by

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expressing a functional peptide portion of a plant stress-regulated polypeptide in a plant cell, the peptide can act as an agonist or an antagonist of the polypeptide, thereby modulating the responsiveness of the plant cell to a stress condition.

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A polynucleotide portion of the plant stress-regulated nucleotide sequence also can contain a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts (knocks-out) an endogenous plant stress-regulated nucleotide sequence, thereby modulating the responsiveness of said plant cell to the stress condition. Depending on whether the knocked-out gene encodes an adaptive or a maladaptive stress-regulated polypeptide, the responsiveness of the plant will be modulated accordingly. Thus, a method of the invention provides a means of producing a transgenic plant having a knock-out phenotype of a plant stress-regulated nucleotide sequence.

Alternatively, the responsiveness of a plant or plant cell to a stress condition can be modulated by use of a suppressor construct containing dominant negative mutation for any of the stress-regulated sequences described herein. Expression of a suppressor construct containing a dominant mutant mutation generates a mutant transcript that, when coexpressed with the wild-type transcript inhibits the action of the wild-type transcript. Methods for the design and use of dominant negative constructs are well known (see, for example, in Herskowitz, Nature 329:219-222, 1987; Lagna and Hemmati-Brivanlou, Curr. Topics Devel. Biol. 36:75-98, 1998).

The polynucleotide portion of the plant stress-regulated gene also can comprise a stress-regulated regulatory element, which can be operatively linked to a heterologous nucleotide sequence, which, upon expression from the regulatory element in response to a stress condition, modulates the responsiveness of the plant cell to the stress condition. Such a heterologous nucleotide sequence can encode, for example, a stress-inducible transcription factor such as DREB1A, which, upon exposure to the stress condition, is expressed such that it can amplify the stress response (see Kasuga et al., *supra*, 1999). The heterologous nucleotide sequence also can encode a polynucleotide that is specific for a plant stress-regulated gene, for example, an antisense molecule, a ribozyme, and a triplexing agent, either of which, upon expression in the plant cell, reduces or inhibits expression of a stress-regulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant

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cell to a stress condition, for example, an abnormal level of cold, osmotic pressure, and salinity. As used herein, the term "abnormal," when used in reference to a condition such as temperature, osmotic pressure, salinity, or any other condition that can be a stress condition, means that the condition varies sufficiently from a range generally considered optimum for growth of a plant that the condition results in an induction of a stress response in a plant. Methods of determining whether a stress response has been induced in a plant are disclosed herein or otherwise known in the art.

A plant stress-regulated regulatory element can be operatively linked to a heterologous polynucleotide sequence, such that the regulatory element can be introduced into a plant genome in a site-specific matter by homologous recombination. For example, a mutant plant stress-regulated regulatory element for a maladaptive stress-induced polypeptide can be transformed into a plant genome in a site specific manner by in vivo mutagenesis, using a hybrid RNA-DNA oligonucleotide ("chimeroplast" (TIBTECH 15:441-447, 1997; W0 95/15972; Kren, Hepatology 25:1462-1468, 1997; Cole-Strauss, Science 273:1386-1389, 1996, each of which is incorporated herein by reference). Part of the DNA component of the RNA-DNA oligonucleotide is homologous to a nucleotide sequence comprising the regulatory element of the maladaptive gene, but includes a mutation or contains a heterologous region which is surrounded by the homologous regions. By means of base pairing of the homologous regions of the RNA-DNA oligonucleotide and of the endogenous nucleic acid molecule, followed by a homologous recombination the mutation contained in the DNA component of the RNA-DNA oligonucleotide or the heterologous region can be transferred to the plant genome, resulting in a "mutant" gene that, for example, is not induced in response to a stress and, therefore, does not confer the maladaptive phenotype. Such a method similarly can be used to knock-out the activity of a stress-regulated gene, for example, in an undesirable plant. Such a method can provide the advantage that a desirable wild-type plant need not compete with the undesirable plant, for example, for light, nutrients, or the like.

A method of modulating the responsiveness of a plant cell to a stress condition also can be performed by introducing a mutation in the chromosomal copy of a plant stress-regulated gene, for example, in the stress-regulated regulatory element, by

72

transforming a cell with a chimeric oligonucleotide composed of a contiguous stretch of RNA and DNA residues in a duplex conformation with double hairpin caps on the ends. An additional feature of the oligonucleotide is the presence of 2'-0- methylation at the RNA residues. The RNA/DNA sequence is designed to align with the sequence of a chromosomal copy of the target regulatory element and to contain the desired nucleotide change (see U.S. Pat. No. 5,501,967, which is incorporated herein by reference).

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A plant stress-regulated regulatory element also can be operatively linked to a heterologous polynucleotide such that, upon expression from the regulatory element in the plant cell, confers a desirable phenotype on the plant cell. For example, the heterologous polynucleotide can encode an aptamer, which can bind to a stress-induced polypeptide. Aptamers are nucleic acid molecules that are selected based on their ability to bind to and inhibit the activity of a protein or metabolite. Aptamers can be obtained by the SELEX (Systematic Evolution of Ligands by Exponential Enrichment) method (see U.S. Pat. No. 5,270,163), wherein a candidate mixture of single stranded nucleic acids having regions of randomized sequence is contacted with a target, and those nucleic acids having a specific affinity to the target are partitioned from the remainder of the candidate mixture, and amplified to yield a ligand enriched mixture. After several iterations a nucleic acid molecule (aptamer) having optimal affinity for the target is obtained. For example, such a nucleic acid molecule can be operatively linked to a plant stress-regulated regulatory element and introduced into a plant. Where the aptamer is selected for binding to a polypeptide that normally is expressed from the regulatory element and is involved in an adaptive response of the plant to a stress, the recombinant molecule comprising the aptamer can be useful for inhibiting the activity of the stress-regulated polypeptide, thereby decreasing the tolerance of the plant to the stress condition.

The invention provides a genetically modified plant, which can be a transgenic plant, that is tolerant or resistant to a stress condition. As used herein, the term "tolerant" or "resistant," when used in reference to a stress condition of a plant, means that the particular plant, when exposed to a stress condition, shows less of an effect, or no effect, in response to the condition as compared to a corresponding reference plant (naturally occurring wild-type plant or a plant not containing a construct of the

73

present invention). As a consequence, a plant encompassed within the present invention grows better under more widely varying conditions, has higher yields and/or produces more seeds. Thus, a transgenic plant produced according to a method of the invention can demonstrate protection (as compared to a corresponding reference plant) from a delay to complete inhibition of alteration in cellular metabolism, or reduced cell growth or cell death caused by the stress. Preferably, the transgenic plant is capable of substantially normal growth under environmental conditions where the corresponding reference plant shows reduced growth, metabolism or viability, or increased male or female sterility.

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The determination that a plant modified according to a method of the invention has increased resistance to a stress-inducing condition can be made by comparing the treated plant with a control (reference) plant using well known methods. For example, a plant having increased tolerance to saline stress can be identified by growing the plant on a medium such as soil, which contains a higher content of salt in the order of at least about 10% compared to a medium the corresponding reference plant is capable of growing on. Advantageously, a plant treated according to a method of the invention can grow on a medium or soil containing at least about 50%, or more than about 75%, particularly at least about more than 100%, and preferably more than about 200% salt than the medium or soil on which a corresponding reference plant can grow. In particular, such a treated plant can grow on medium or soil containing at least 40 mM, generally at least 100 mM, particularly at least 200 mM, and preferably at least 300 mM salt, including, for example, a water soluble inorganic salt such as sodium sulfate, magnesium sulfate, calcium sulfate, sodium chloride, magnesium chloride, calcium chloride, potassium chloride, or the like; salts of agricultural fertilizers, and salts associated with alkaline or acid soil conditions; particularly NaCl.

In another embodiment, the invention provides a plant that is less tolerant or less resistant to a stress condition as compared to a corresponding reference plant. As used herein, the term "less tolerant" or "less resistant," when used in reference to a stress condition of a plant, means that the particular plant, when exposed to a stress condition, shows an alteration in response to the condition as compared to a corresponding reference plant. As a consequence, such a plant, which generally is an

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undesirable plant species, is less likely to grow when exposed to a stress condition than an untreated plant.

The present invention also relates to a method of expressing a heterologous nucleotide sequence in a plant cell. Such a method can be performed, for example, by introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, whereby, upon exposure of the plant cell to stress condition, the heterologous nucleotide sequence is expressed in the plant cell. The heterologous nucleotide sequence can encode a selectable marker, or preferably, a polypeptide that confers a desirable trait upon the plant cell, for example, a polypeptide that improves the nutritional value, digestibility or ornamental value of the plant cell, or a plant comprising the plant cell. Accordingly, the invention provides a transgenic plant that, in response to a stress condition, can produce a heterologous polypeptide from a plant stress-regulated regulatory element. Such transgenic plants can provide the advantage that, when grown in a cold environment for example, expression of the heterologous polypeptide from a plant cold-regulated regulatory element can result in increased nutritional value of the plant.

The present invention further relates to a method of modulating the activity of a biological pathway in a plant cell, wherein the pathway involves a stress-regulated polypeptide. As used herein, reference to a pathway that "involves" a stress-regulated polypeptide means that the polypeptide is required for normal function of the pathway. For example, plant stress-regulated polypeptides as disclosed herein include those acting as kinases or as transcription factors, which are well known to be involved in signal transduction pathways. As such, a method of the invention provides a means to modulate biological pathways involving plant stress-regulated polypeptides, for example, by altering the expression of the polypeptides in response to a stress condition. Thus, a method of the invention can be performed, for example, by introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, thereby modulating the activity of the biological pathway.

A method of the invention can be performed with respect to a pathway

involving any of the stress-regulated polypeptides as encoded by a polynucleotide of
SEQ ID NOS:1-2703, including for example, a stress-regulated transcription factor,
an enzyme, including a kinase, a channel protein (see, for example, Tables 29-31; see,

75

also, Table 1). Pathways in which the disclosed stress-regulated stress factors are involved can be identified, for example, by searching the Munich Information Center for Protein Sequences (MIPS) *Arabidopsis thaliana* database (MATDB), which is at http://www.mips.biochem.mpg.de/proj/thal/.

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The present invention also relates to a method of identifying a polynucleotide that modulates a stress response in a plant cell. Such a method can be performed, for example, by contacting an array of probes representative of a plant cell genome and nucleic acid molecules expressed in plant cell exposed to the stress; detecting a nucleic acid molecule that is expressed at a level different from a level of expression in the absence of the stress; introducing the nucleic acid molecule that is expressed differently into a plant cell; and detecting a modulated response of the plant cell containing the introduced nucleic acid molecule to a stress, thereby identifying a polynucleotide that modulates a stress response in a plant cell. The contacting is under conditions that allow for selective hybridization of a nucleic acid molecule with probe having sufficient complementarity, for example, under stringent hybridization conditions.

As used herein, the term "array of probes representative of a plant cell genome" means an organized group of oligonucleotide probes that are linked to a solid support, for example, a microchip or a glass slide, wherein the probes can hybridize specifically and selectively to nucleic acid molecules expressed in a plant cell. Such an array is exemplified herein by a GeneChip® Arabidopsis Genome Array (Affymetrix; see Example 1). In general, an array of probes that is "representative" of a plant genome will identify at least about 30% or the expressed nucleic acid molecules in a plant cell, generally at least about 50% or 70%, particularly at least about 30% or 90%, and preferably will identify all of the expressed nucleic acid molecules. It should be recognized that the greater the representation, the more likely all nucleotide sequences of cluster of stress-regulated genes will be identified.

A method of the invention is exemplified in Example 1, wherein clusters of Arabidopsis genes induced to cold, to increased salinity, to increased osmotic pressure, and to a combination of the above three stress conditions were identified. Based on the present disclosure, the artisan readily can obtain nucleic acid samples for Arabidopsis plants exposed to other stress conditions, or combinations of stress

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conditions, and identify clusters of genes induced in response to the stress conditions. Similarly, the method is readily adaptable to identifying clusters of stress-regulated genes expressed in other plant species, particularly commercially valuable plant species, where a substantial amount of information is known regarding the genome.

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The clusters of genes identified herein include those clusters of genes that are induced or repressed in response to a combination of stress conditions, but not to any of the stress conditions alone; and clusters of genes that are induced or repressed in response to a selected stress condition, but not to other stress conditions tested. Furthermore, clusters of genes that respond to a stress condition in a temporally regulated manner are also included, such as gene clusters that are induced early (for example, within about 3 hours), late (for example, after about 8 to 24 hours), or continuously in a stress response. In addition, the genes within a cluster are represented by a variety of cellular proteins, including transcription factors, enzymes such as kinases, channel proteins, and the like (see Tables 1 and 29-31). Thus, the present invention further characterizes nucleotide sequences that previously were known to encode cellular peptides by classifying them within clusters of stress-regulated genes.

The present invention additionally relates to a method of identifying a stress condition to which a plant cell was exposed. Such a method can be performed, for example, by contacting nucleic acid molecules expressed in the plant cell and an array of probes representative of the plant cell genome; and detecting a profile of expressed nucleic acid molecules characteristic of a stress response, thereby identifying the stress condition to which the plant cell was exposed. The contacting generally is under conditions that allow for selective hybridization of a nucleic acid molecule with probe having sufficient complementarity, for example, under stringent hybridization conditions. The profile can be characteristic of exposure to a single stress condition, for example, an abnormal level of cold, osmotic pressure, or salinity (Tables 3-14), or can be characteristic of exposure to more than one stress condition (Tables 15-26, for example, cold, increased osmotic pressure and increased salinity (see Tables 24-26).

The method can be practiced using at least one nucleic acid probe and can identify one or combination of stress conditions by detecting altered expression of one or a plurality of polynucleotides representative of plant stress-regulated genes. As

77

used herein, the term "at least one" includes one, two, three or more, for example, five, ten, twenty, fifty or more polynucleotides, nucleic acid probes, and the like. The term "plurality" is used herein to mean two or more, for example, three, four, five or more, including ten, twenty, fifty or more polynucleotides, nucleic acid probes, and the like.

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In a method of the invention, nucleic acid samples from the plant cells to be collected can be contacted with an array, then the profile can be compared with known expression profiles prepared from nucleic acid samples of plants exposed to a known stress condition or combination of stress conditions. By creating a panel of such profiles, representative of various stress conditions, an unknown stress condition to which a plant was exposed can be identified simply by comparing the unknown profile with the known profiles and determining which known profile that matches the unknown profile. Preferably, the comparison is automated. Such a method can be useful, for example, to identify a cause of damage to a crop, where the condition causing the stress is not known or gradually increases over time. For example, accumulation in soils over time of salts from irrigation water can result in gradually decreasing crop yields. Because the accumulation is gradual, the cause of the decreased yield may not be readily apparent. Using the present methods, it is possible to evaluate the stress to which the plants are exposed, thus revealing the cause of the decreased yields.

The present invention, therefore includes a computer readable medium containing executable instructions form receiving expression data for sequences substantially similar to any of those disclosed herein and comparing expression data from a test plant to a reference plant that has been exposed to an abiotic stress. Also provided is a computer-readable medium containing sequence data for sequences substantially similar to any of the sequences described herein, or the complements thereof, and a module for comparing such sequences to other nucleic acid sequences.

Also provided are plants and plant cells comprising plant stress-regulatory elements of the present invention operably linked to a nucleotide sequence encoding a detectable signal. Such plants can be used as diagnostic or "sentinel" plants to provide early warning that nearby plants are being stressed so that appropriate actions can be taken. In one embodiment, the signal is one that alters the appearance of the

78

plant. For example, an osmotic stress regulatory element of the present invention can be operably linked to a nucleotide sequence encoding a fluorescent protein such as green fluorescent protein. When subjected to osmotic stress, the expression of the green fluorescent protein in the sentinel plant provides a visible signal so that appropriate actions can be taken to remove or alleviate the stress. The use of fluorescent proteins in plants is well known (see, for example, in Leffel et al., BioTechniques 23:912, 1997).

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The invention further relates to a method of identifying an agent that modulates the activity of a stress-regulated regulatory element of a plant. As used herein, the term "modulate the activity," when used in reference to a plant stress-regulated regulatory element, means that expression of a polynucleotide from the regulatory element is increased or decreased. In particular, expression can be increased or decreased with respect to the basal activity of the promoter, i.e., the level of expression, if any, in the absence of a stress condition that normally induces expression from the regulatory element; or can be increased or decreased with respect to the level of expression in the presence of the inducing stress condition. As such, an agent can act as a mimic of a stress condition, or can act to modulate the response to a stress condition.

Such a method can be performed, for example, by contacting the regulatory element with an agent suspected of having the ability to modulate the activity of the regulatory element, and detecting a change in the activity of the regulatory element. In one embodiment, the regulatory element can be operatively linked to a heterologous polynucleotide encoding a reporter molecule, and an agent that modulates the activity of the stress-regulated regulatory element can be identified by detecting a change in expression of the reporter molecule due to contacting the regulatory element with the agent. Such a method can be performed *in vitro* in a plant cell-free system, or in a plant cell in culture or in a plant *in situ*.

A method of the invention also can be performed by contacting the agent is contacted with a genetically modified cell or a transgenic plant containing an introduced plant stress-regulated regulatory element, and an agent that modulates the activity of the regulatory element is identified by detecting a phenotypic change in the modified cell or transgenic plant.

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A method of the invention can be performed in the presence or absence of the stress condition to which the particularly regulatory element is responsive. As such, the method can identify an agent that modulates the activity of plant stress-regulated promoter in response to the stress, for example, an agent that can enhance the stress response or can reduce the stress response. In particular, a method of the invention can identify an agent that selectively activates the stress-regulated regulatory elements of a cluster of plant stress-regulated genes, but does not affect the activity of other stress-regulated regulatory genes. As such, the method provides a means to identify an agent that acts as a stress mimic. Such agents can be particularly useful to prepare a plant to an expected stress condition. For example, a agent that acts as a cold mimic can be applied to a field of plants prior to the arrival of an expected cold front. Thus, the cold stress response can be induced prior to the actual cold weather, thereby providing the plants with the protection of the stress response, without the plants suffering from any initial damage due to the cold. Similarly, an osmotic pressure mimic can be applied to a crop of plants prior a field being flooded by a rising river.

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In one embodiment, the present invention provides a method for marker-assisted selection. Marker-assisted selection involves the selection of plants having desirable phenotypes based on the presence of particular nucleotide sequences ("markers"). The use of markers allows plants to be selected early in development, often before the phenotype would normally be manifest. Because it allows for early selection, marker-assisted selection decreases the amount of time need for selection and thus allows more rapid genetic progress.

Briefly, marker-assisted selection involves obtaining nucleic acid from a plant to be selected. The nucleic acid obtained is then probed with probes that selectively hybridize under stringent, preferably highly stringent, conditions to a nucleotide sequence or sequences associated with the desired phenotype. In one embodiment, the probes hybridize to any of the stress-responsive genes or regulatory regions disclosed herein, for example, any one of SEQ ID NOS:1-2703. The presence of any hybridization products formed is detected and plants are then selected on the presence or absence of the hybridization products.

The following examples are intended to illustrate but not limit the invention.

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EXAMPLE 1

PROFILING OF PLANT STRESS-REGULATED GENES.

This example demonstrates that clusters of stress-regulated genes can be identified in plant cells exposed to various stress conditions, either alone or in combination.

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A GeneChip® Arabidopsis Genome Array (Affymetrix, Santa Clara, CA) was used to identify clusters of genes that were coordinately induced in response to various stress conditions. The GeneChip® Arabidopsis Genome Array contains probes synthesized *in situ* and is designed to measure temporal and spatial gene expression of approximately 8700 genes in greater than 100 EST clusters. The sequences used to develop the array were obtained from GenBank (http://www.ncbi.nlm.nih.gov/) in collaboration with Torrey Mesa Research Institute (San Diego, CA), formerly known as Novartis Agriculture Discovery Institute. Eighty percent of the nucleotide sequences represented on the array are predicted coding sequences from genomic BAC entries; twenty percent are high quality cDNA sequences. The array also contains over 100 EST clusters that share homology with the predicted coding sequences from BAC clones (see, for example, world wide web at address (url) "affymetrix.com/products/Arabidopsis content.html".

The Affymetrix GeneChip® array was used to define nucleotide sequences/
pathways affected by various abiotic stresses and to define which are uniquely
regulated by one stress and those that respond to multiple stress, and to identify
candidate nucleotide sequences for screening for insertional mutants. Of the
approximately 8,700 nucleotide sequences represented on the Affymetrix GeneChip®
array, 2862 nucleotide sequences showed at least a 2-fold change in expression in at
least one sample, relative to no-treatment controls. Of those 2,862 nucleotide
sequences 1,335 were regulated only by cold stress, 166 were regulated only mannitol
stress and 209 were regulated only by saline stress. Furthermore, of the
2,862 nucleotide sequences 123 nucleotide sequences were regulated by salt and
mannitol stress, 293 were regulated by mannitol and cold stress, 274 were regulated
by cold and saline stress and 462 were regulated by cold, mannitol and salt. Of the
2,862 nucleotide sequences, 771 passed the higher stringency of showing at least a

81

2-fold change in expression in at least 2 samples, relative to control. And, 508 of the 771 nucleotide sequences were found in an in-house collection of insertion mutants.

The following describes in more detail how the experiments were done. Transcriptional profiling was performed by hybridizing fluorescence labeled cRNA with the oligonucleotides probes on the chip, washing, and scanning. Each gene is represented on the chip by about sixteen oligonucleotides (25-mers). Expression level is related to fluorescence intensity. Starting material contained 1 to 10 Tg total RNA; detection specificity was about 1:10⁶; approximately a 2-fold change was detectable, with less than 2% false positive; the dynamic range was approximately 500x. Nucleotide sequences having up to 70% to 80% identity could be discriminated using this system.

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Seven day old axenic *Arabidopsis* seedlings were transferred to Magenta boxes with rafts floating on MS medium. Three weeks later (28 day old seedlings), stresses were applied as follows: Control - no treatment; Cold - Magenta box placed in ice; Mannitol - medium + 200 mM mannitol; Salt - medium + 100 mM NaCl. Tissue samples were collected at 3 hours and 27 hours into the stress, roots and aerial portions were harvested, RNA was purified, and the samples were analyzed using the GeneChip® Arabidopsis Genome Array (Affymetrix, Santa Clara, CA) following the manufacturer's protocol.

Raw fluorescence values as generated by Affymetrix software were processed as follows: the values were brought into Microsoft Excel and values of 25 or less were set to 25 (an empirically determined baseline, Zhu and Wang, Plant Physiol. 124:1472-1476; 2000). The values from the stressed samples were then converted to fold change relative to control by dividing the values from the stressed samples by the values from the no-treatment control samples. Expression patterns that were altered at least 2-fold with respect to the control were selected. This method gave very robust results and resulted in a larger number of nucleotide sequences called as stress-regulated than previous methods had permitted.

Based on the profiles obtained following hybridization of nucleic acid molecules obtained from plant cells exposed to various stress conditions to the probes in the microarray, clusters of nucleotide sequences that were altered in response to the stress

conditions were identified (see Tables 3-6, cold responsive; Tables 7-10, salt (saline) responsive; Tables 11 to 14, mannitol (osmotic) responsive; Tables 15-17, cold and mannitol responsive; Tables 18-20, 6 salt and cold responsive; Tables 21-23, salt and mannitol responsive; Tables 24-26, cold, salt and mannitol responsive. Examples of plant gene sequences that varied in expression at least two-fold in response to a combination of cold, saline and osmotic stress in root cells and leaf cells are shown in Tables 27 and 28, respectively. In addition, examples of plant gene sequences that encode transcription factors (Table 29), phosphatases (Table 30), and kinases (Table 31) and that varied at least two-fold in response to a combination of cold, saline and osmotic stress are provided.

Affymetrix ID numbers and corresponding SEQ ID NOS: for the respective Arabidopsis nucleotide sequences are provided Tables 3-26, and can be used to determine SEQ ID NOS: for the sequences shown by Affymetrix ID number in Tables 27-31. The Affymetrix ID number refers to a particular nucleotide sequence on the GeneChip® Arabidopsis Genome Array. In some cases, a particular plant stress-regulated gene sequence hybridized to more than one nucleotide sequence on the GeneChip® Arabidopsis Genome Array (see, for example, Table 3, where SEQ ID NO:36 is shown to have hybridized to the 12187_AT and 15920_I_AT nucleotide sequences on the GeneChip®). In addition, it should be recognized that the disclosed sequences are not limited to coding sequences but, in some cases, include 5' untranslated sequences (see Table 2) or a longest coding region. As such, while the sequences set forth as SEQ ID NOS:1-2073 generally start with an ATG codon, in most cases each comprises a longer nucleotide sequence, including a regulatory region (see Table 2).

The results disclosed herein demonstrate that several polynucleotides, some of which were known to function as transcription factors, enzymes, and structural proteins, also are involved in the response of a plant cell to stress. The identification of the clusters of stress-regulated genes as disclosed herein provides a means to identify stress-regulated regulatory elements present in *Arabidopsis thaliana* nucleotide sequences, including consensus regulatory elements. It should be recognized, however that the regulatory elements of the plant genes comprising a sequence as set forth in SEQ ID NOS:156, 229, 233, 558, 573, 606, 625, 635, 787, and 813, which previously have

83

been described as cold regulated genes, are not encompassed within the stress-regulated gene regulatory element of the invention, and the regulatory elements of the plant genes comprising the nucleotide sequences set forth as SEQ ID NOS:1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918, and 1928, which previously have been identified as genes that are responsive to a single stress condition such as cold or saline stress, are not encompassed within the plant stress-regulated gene regulatory elements of the invention to the extent that they confer stress-regulated expression only with respect to the known single stress. Furthermore, the identification of the *Arabidopsis* stress-regulated genes provides a means to identify the corresponding homologs and orthologs in other plants, including commercially valuable food crops such as wheat, rice, soy, and barley, and ornamental plants.

BLASTN and BLASTP searches to identify such sequences revealed the polynucleotide sequences set forth in Table 32.

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Although the invention has been described with reference to the above example, it will be understood that modifications and variations are encompassed within the spirit and scope of the invention. Accordingly, the invention is limited only by the claims, which follow Tables 1 to 32.

TABLE 1

SEQUENCE DESCRIPTIONS

Seq	Description	41	scarecrow-like 7 (SCL7)
ID	_	42	putative protein
1	unknown protein	43	No function assigned by TIGR
2	unknown protein	44	unknown protein
3	unknown protein	45	unknown protein
4	putative auxin-induced		and own protein
proteir		SEQ	Description
5	unknown protein	ID `	
6	hypothetical protein	46	succinyl-CoA-ligase alpha subunit
7	putative protein	47	putative protein
8	unknown protein	48	CLV1 receptor kinase like protein
9	unknown protein	49	putative receptor-like protein
10	unknown protein		kinase
11	putative protein	50	putative squalene synthase
12	Thioredoxin - like protein	51	putative receptor protein kinase
13	putative RNA helicase	52	somatic embryogenesis receptor-
14	putative protein		like kinase, putative
15	putative protein	53	putative protein
16	RING zinc finger protein,	54	putative beta-glucosidase
	putative	55	multi-drug resistance protein
17	putative cyclin	56	receptor protein kinase (TMK1),
18	putative protein		putative
19	putative protein	57	putative receptor-like protein
20	unknown protein		kinase
21	putative protein	58	putative pectate lyase
22	putative protein	59	putative protein kinase
23	hypothetical protein	60	putative peroxidase
24	unknown protein	61	cytochrome P450-like protein
25	hypothetical protein	62	putative beta-amylase
26	unknown protein	63	monosaccharide transporter STP3
27	unknown protein	64	Lycopersicon esculentum
28	unknown protein		proteinase TMP, Pir2:T07617
29	unknown protein	65	putative receptor-like protein
30	putative protein		kinase
31	putative protein	66	G-box-binding factor 1
32	putative protein	67	amino acid carrier, putative
33	unknown protein	68	myb-related protein
34	putative ribonuclease III	69	No function assigned by TIGR
35	unknown protein	70	SNF1 like protein kinase
36	unknown protein	71	Cu/Zn superoxide dismutase-like
37	unknown protein		protein
38	unknown protein	72	putative protein kinase
39	unknown protein	73	small nuclear ribonucleoprotein
40	putative histidine kinase		UlA

74	ras-like GTP-binding	101	dynein light chain like protein
protein		102	chaperonin CPN10
75	oleoyl-[acyl-carrier-protein]	103	putative bHLH transcription factor
	hydrolase-like protein	104	putative glyoxysomal malate
76	putative heat shock		dehydrogenase precursor
	transcription factor	105	ATP-dependent RNA helicase,
77	putative protein		putative
78	membrane-bound small	106	chlorophyll synthetase
	GTP-binding - like protein	107	similar to epoxide hydrolases
79 "	putative protein (fragment)	108	putative protein
80	indole-3-acetate beta-	109	unknown protein
	glucosyltransferase like	110	hypothetical protein
	protein	111	putative membrane transporter
81	HD-zip transcription factor	112	putative tyrosyl-tRNA synthetase
01	(athb-8)	113	ARGININE/SERINE-RICH
82	putative cAMP-dependent		SPLICING FACTOR RSP31
0.2	protein kinase	114	putative oxidoreductase
83	glucuronosyl transferase-	115	unknown protein
	like protein	116	linker histone protein, putative
84	putative leucine-rich repeat	117	hypothetical protein
	disease resistance protein	118	putative protein
85	98b like protein	119	putative mitochondrial carrier
86	putative receptor-like		protein
	protein kinase	120	putative transcription factor
87	IAA-Ala hydrolase (IAR3)	121	MYB-related protein
88	putative AP2 domain	122	myb-related transcription factor,
	transcription factor		putative
89	putative expansin	123	unknown protein
90	putative Ap2 domain	124	unknown protein
prote	<u>-</u>	125	putative glycine-rich protein
91	expansin (At-EXP1)	126	No function assigned by TIGR
92	cytochrome P450 - like	127	unknown protein
prote		128	unknown protein
93	putative ATP-dependent	129	unknown protein
,,	RNA helicase A	130	unknown protein
94	unknown protein	131	putative membrane channel protein
95	predicted protein	132	putative protein
96	putative glucosyltransferase	133	unknown protein
97	unknown protein	134	gamma glutamyl hydrolase,
98	putative xyloglucan-		putative
,,	specific glucanase	135	40S ribosomal protein S5
99	cysteine synthase	136	DnaJ-like protein
100	clathrin assembly protein	137	40S ribosomal protein S26
100	AP19 homolog	138	putative WRKY-type DNA binding protein

139	putative protein	161	putative photomorphogenesis
140	hypothetical protein		repressor protein
141	putative ubiquitin-	162	SNF1-like protein kinase (AKin11)
	conjugating enzyme	163	thioredoxin h
142	peptidylprolyl isomerase	164	thioredoxin
ROC1		165	Ca2+-dependent lipid-binding
143	glyceraldehyde-3-		protein, putative
	phosphate dehydrogenase C	166	putative auxin-induced protein
	subunit (GapC)	167	putative bZIP transcription factor
144	No function assigned by	168	hypothetical protein
TIGR		169	putative AVR9 elicitor response
145	putative protein		protein
146	putative thioredoxin	170	putative serine/threonine protein
147	thioredoxin h, putative		kinase
148	thioredoxin-like	171	bZIP transcription factor ATB2
149	allene oxide synthase	172	putative spliceosome associated
	(emb CAA73184.1)		protein
150	anthranilate synthase	173	3-hydroxyisobutyryl-coenzyme A
	component I-1 precursor		hydrolase - like protein
	(sp P32068)	174	putative protein
151	CELL DIVISION	175	putative Mutator-like transposase
	CONTROL PROTEIN 2	176	putative protein
	HOMOLOG A	177	unknown protein
152	protein kinase cdc2	178	putative protein
homol	og B	179	putative protein
153	ethylene responsive	180	putative galactinol synthase
	element binding factor 1	181	putative transcriptional regulator
	(frameshift!)	182	nuclear matrix constituent protein 1
154	ethylene responsive		(NMCP1)-like
	element binding factor 2	183	putative DNA-binding protein
	(ATERF2) (sp O80338)		RAV2
155	ethylene responsive	184	No function assigned by TIGR
	element binding factor 5	185	basic blue protein, 5' partial
	(ATERF5) (sp O80341)	186	unknown protein
156	glucose-6-phosphate	187	putative calcium-binding protein,
	dehydrogenase		calreticulin
157	photomorphogenesis	188	putative pyrophosphate-fructose-6-
	repressor (COP1)		phosphate 1-phosphotransferase
158	unknown protein	189	ribosomal protein L11, cytosolic
159	DNA (cytosine-5)-	190	putative dTDP-glucose 4-6-
	methyltransferase (DNA		dehydratase
	methyltransferase) (DNA	191	40S ribosomal protein S20-like
	metase) (sp P34881)		protein
160	PROLIFERA	192	60S ribosomal protein L24

193	coatomer-like protein,	223	putative SF16 protein {Helianthus
	epsilon subunit	20.4	annuus}
194	glycoprotein(EP1), putative	224	unknown protein
195	putative SPL1-related	225	thioredoxin
proteir		226	trehalose-6-phosphate phosphatase
196	unknown protein	005	(AtTPPB)
197	putative transport protein	227	chlorophyll a/b-binding protein
	SEC61 beta-subunit	228	class IV chitinase (CHIV)
198	unknown protein	229	chalcone synthase (naringenin-
199	putative cytochrome P450		chalcone synthase) (testa 4 protein)
200	UTP-glucose		(sp P13114)
	glucosyltransferase - like	230	unknown protein
	protein	231	cinnamyl-alcohol dehydrogenase
201	60S ribosomal protein L23		ELI3-2
202	40S ribosomal protein S17	232	farnesyl-pyrophosphate synthetase
203	40S ribosomal protein S26		FPS2
204	protein translation factor	233	phospholipid hydroperoxide
	Suil homolog, putative		glutathione peroxidase
205	unknown protein	234	heat shock transcription factor
206	gamma glutamyl hydrolase,		HSF4
	putative	235	heat shock protein 101
207	dTDP-glucose 4,6-	236	17.6 kDa heat shock protein (AA
	dehydratase, putative		1-156)
208	extensin - like protein	237	heat shock protein 17.6A
209	unknown protein	238	heat-shock protein
210	protein phosphatase 2C -	239	HY5
	like protein	240	putative auxin-induced protein,
211	ubiquitin-like protein		IAA12
212	protein phosphatase 2C-like	241	early auxin-induced protein,
	protein		IAA19
213	unknown protein	242	auxin-inducible gene (IAA2)
214	putative RING zinc finger	243	putative protein
	rin protein	244	putative choline kinase
215	unknown protein	245	thymidylate kinase - like protein
216	putative rubisco subunit	246	CTP synthase like protein
	binding-protein alpha	247	putative protein
	subunit	248	putative amidase
217	putative acetone-	249	4-alpha-glucanotransferase
21,	cyanohydrin lyase	250	hypothetical protein
218	putative isoamylase	251	similar to auxin-induced protein
219	putative protein	252	putative protein
220	HSP associated protein like	253	putative protein
221	60S ribosomal protein L39	254	putative protein
222	unknown protein	255	hyuC-like protein

256	putative tetracycline	287	unknown protein
	transporter protein	288	putative esterase D
257	similar to early nodulins	289	predicted protein of unknown
258	putative protein	function	on
259	putative peptidyl-prolyl cis-	290	unknown protein
	trans isomerase	291	putative indole-3-glycerol
260	unknown protein		phosphate synthase
261	unknown protein	292	isopentenyl
262	putative endochitinase		pyrophosphate:dimethyllallyl
263	putative ABC transporter		pyrophosphate isomerase
264	No function assigned by	293	kinase associated protein
TIGR			phosphatase
265	CONSTANS-like B-box	294	putative K+ channel, beta subunit
	zinc finger protein	295	KNAT1 homeobox-like protein
266	unknown protein	296	PSI type II chlorophyll a/b-binding
267	unknown protein		protein, putative
268	putative mitochondrial	297	transcription factor
	processing peptidase alpha	298	putative WD-40 repeat protein,
	subunit		MSI2
269	putative pre-mRNA	299	WD-40 repeat protein (MSI3)
	splicing factor	300	putative WD-40 repeat protein,
270	putative phosphatidylserine		MSI4
	decarboxylase	301	unknown protein
271	unknown protein	302	hypothetical protein
272	unknown protein	303	putative protein
273	unknown protein	304	No function assigned by TIGR
274	putative casein kinase I	305	polyphosphoinositide binding
275	unknown protein		protein, putative
276	60S ribosomal protein	306	hypothetical protein
L23A		307	unknown protein
277	putative mitochondrial	308	chloroplast ribosomal L1 - like
	dicarboxylate carrier		protein
	protein	309	cold-regulated protein cor15b
278	enoyl-ACP reductase (enr-		precursor
A)		310	cyanohydrin lyase like protein
279	putative isoamylase	311	putative replication protein A1
280	formamidase - like protein	312	putative protein
281	reticuline oxidase - like	313	possible apospory-associated like
protei			protein
282	unknown protein	314	DNA binding protein GT-1,
283	putative transketolase		putative
precu		315	AT-hook DNA-binding protein
284	putative protein		(AHP1)
285	unknown protein	316	putative phospholipase
286	unknown protein	317	chloroplast FtsH protease, putative

318	enoyl-CoA hydratase like	348	putative farnesylated protein
	protein	349	unknown protein
319	berberine bridge enzyme -	350	water stress-induced protein,
	like protein		putative
320	putative sugar transporter	351	unknown protein
321	unknown protein	352	unknown protein
322	No function assigned by	353	PEROXISOMAL MEMBRANE
TIGR	5 ,		PROTEIN PMP22
323	hypothetical protein	354	putative peroxisomal membrane
324	putative acidic ribosomal		carrier protein
	protein	355	putative protein
325	putative protein	356	unknown protein
326	unknown protein	357	putative protein
327	hypothetical protein	358	putative protein
328	putative protein	359	argininosuccinate synthase -like
329	P		protein
	dihydroxypolypreny	360	1-phosphatidylinositol-4,5-
	lbenzoate methyltransferase	bispho	osphate phosphodiesterase
330	unknown protein	361	putative JUN kinase activator
331	myb-related protein	protei	n
332	No function assigned by	362	putative 60S ribosomal protein L35
TIGR		363	nucleoid DNA-binding protein
333	putative protein		cnd41 - like protein
334	putative disease resistance	364	SigA binding protein
	response protein	365	hypothetical protein
335	hypothetical protein	366	putative protein kinase
336	No function assigned by	367	unknown protein
TIGR		368	regulatory protein NPR1-like;
337	starch branching enzyme II		transcription factor inhibitor I
338	No function assigned by		kappa B-like
TIGR		369	putative protein
339	putative enolase (2-	370	hypothetical protein
	phospho-D-glycerate	371	phosphoribosylanthranilate
	hydroylase)		isomerase
340	putative protein kinase	372	phosphoribosylanthranilate
341	HD-Zip protein, putative		isomerase
342	putative protein kinase	373	sterol glucosyltransferase, putative
343	phenylalanyl-trna	374	putative gigantea protein
	synthetase - like protein	375	putative MYB family transcription
344	putative aconitase		factor
345	NAM(no apical meristem)	376	hypothetical protein
	protein, putative	377	hypothetical protein
346	unknown protein	378	predicted protein
347	putative	379	cytochrome P450, putative
phos	phomannomutase		

380	putative Na+ dependent		chloroplast precursor (splQ02166)
	ileal bile acid transporter	416	phytochrome C (sp P14714)
381	unknown protein	417	putative phytochrome-associated
382	RING-H2 finger protein		protein 3
	RHF1a	418	receptor serine/threonine kinase
383	putative protein		PR5K
384	unknown protein	419	Ran-binding protein (atranbpla)
385	putative protein	420	small Ras-like GTP-binding
386	putative auxin-regulated		protein (gb AAB58478.1)
	protein	421	sterol-C5-desaturase
387	hypothetical protein	422	tryptophan synthase beta chain 1
388	unknown protein		precursor (sp P14671)
389	unknown protein	423	thioredoxin f2 (gb AAD35004.1)
390	putative protein	424	No function assigned by TIGR
391	putative protein	425	putative WRKY DNA-binding
392	unknown protein		protein
393	histone H1	426	putative protein
394	Argonaute (AGO1)-like	427	unknown protein
protei		428	unknown protein
395	unknown protein	429	14-3-3 protein homolog RCI1
396	putative protein with C-		(pir S47969)
390	terminal RING finger	430	unknown protein
397	unknown protein	431	putative CCCH-type zinc finger
398	unknown protein	protei	•
399	unknown protein	432	PINHEAD (gb AAD40098.1);
400	unknown protein		ation initiation factor
	unknown protein	433	plasma membrane proton ATPase
401	-	(PMA	-
402	putative copper amine	434	CHLOROPHYLL A-B BINDING
oxida		7.77	PROTEIN 4 PRECURSOR
403	unknown protein		homolog
404	unknown protein	435	membrane related protein CP5,
405	unknown protein	433	putative
406	putative protein	436	ABC transporter (AtMRP2)
407	putative protein	430	putative embryo-abundant protein
408	unknown protein		putative embryo-abundant protein putative anthocyanidin-3-glucoside
409	unknown protein	438	rhamnosyltransferase
410	putative protein	420	putative lipid transfer protein
411	putative protein	439	• •
412	unknown protein	440	unknown protein
413	serine/threonine kinase -	441	unknown protein
	like protein	442	galactinol synthase, putative
414	alcohol dehydrogenase,	443	putative protein
	putative	444	putative protein
415	anthranilate	445	SCARECROW-like protein
	phosphoribosyltransferase,	446	unknown protein

447	unknown protein	476	phosphoenolpyruvate carboxylase
448	unknown protein		(PPC)
449	unknown protein	477	chlorophyll a/b-binding protein -
450	asparaginetRNA ligase		like
451	putative protein	478	AtAGP4
452	glutamate-1-semialdehyde	479	putative cryptochrome 2 apoprotein
	2,1-aminomutase 1	480	type 2 peroxiredoxin, putative
	precursor (GSA 1)	481	Atpm24.1 glutathione S transferase
	(glutamate-1-semialdehyde	482	delta tonoplast integral protein
	aminotransferase 1) (GSA-		(delta-TIP)
	AT 1) (sp P42799)	483	20S proteasome subunit (PAA2)
453	hypothetical protein	484	dormancy-associated protein,
454	putative serine protease-like		putative
	protein	485	putative cytidine deaminase
455	No function assigned by	486	No function assigned by TIGR
TIGR	140 Iuliotion aborgino by	487	putative phospholipase D-gamma
456	unknown protein	488	cell elongation protein, Dwarfl
457	unknown protein	489	germin-like protein
458	gamma-adaptin, putative	490	hevein-like protein precursor (PR-
459	UDP rhamnose		4)
737	anthocyanidin-3-glucoside	491	rac-like GTP binding protein
	rhamnosyltransferase - like		(ARAC5)
	protein	492	phosphoprotein phosphatase, type
460	carbonate dehydratase - like		1 catalytic subunit
400	protein	493	ubiquitin-protein ligase UBC9
461	putative microtubule-	494	xyloglucan endotransglycosylase-
401	associated protein		related protein XTR-7
462	putative ribophorin I	495	cysteine synthase
463	putative zinc finger protein	496	putative villin 2
464	chloroplast FtsH protease,	497	glutathione S-transferase
707	putative	498	5-adenylylsulfate reductase
465	putative protein	499	arginine decarboxylase
466	unknown protein	500	ATHP2, putative
467	putative LEA protein	501	ornithine carbamoyltransferase
468	putative protein	precu	•
469	putative protein	502	puative protein
470	unknown protein	503	putative protein
471	putative purple acid	504	unknown protein
4/1	phosphatase	505	putative protein
472	unknown protein	506	putative protein
	putative protein	507	unknown protein
473 474	unknown protein	508	unknown protein
	chlorophyll binding protein,	509	unknown protein
475	putative	510	unknown protein
	putative	511	hypothetical protein

512	putative protein	552	putative CCCH-type zinc finger
513	putative DnaJ protein		protein
514	plastocyanin	553	MAP kinase kinase 2
515	unknown protein	554	ethylene-insensitive3-like1 (EIL1)
516	unknown protein	555	histidine transport protein (PTR2-
517	unknown protein		B)
518	unknown protein	556	putative auxin-induced protein
519	unknown protein		AUX2-11
520	unknown protein	557	hydroxyacylglutathione hydrolase
521	putative ATP-dependent		cytoplasmic (glyoxalase II) (GLX
	RNA helicase		II)
522	non-race specific disease	558	delta-8 sphingolipid desaturase
	resistance protein (NDR1)	559	cellulose synthase catalytic subunit
523	hypothetical protein		(Ath-A)
524	putative protein	560	nitrate transporter (NTL1)
525	putative protein	561	DNA-binding homeotic protein
526	putative protein		Athb-2
527	copper transport protein	562	hypothetical protein
528	putative protein	563	aspartate aminotransferase
529	unknown protein	564	4-coumarate:CoA ligase 1
530	unknown protein	565	pyruvate dehydrogenase E1 beta
531	unknown protein		subunit, putative
532	putative protein kinase	566	nucleotide diphosphate kinase Ia
533	unknown protein		(emb CAB58230.1)
534	putative protein	567	chloroplast Cpn21 protein
535	putative protein	568	ATP dependent copper transporter
536	hypothetical protein	569	very-long-chain fatty acid
537	putative protein		condensing enzyme (CUT1)
538	putative AP2 domain	570	putative purine-rich single-stranded
	transcription factor		DNA-binding protein
539	putative nitrilase	571	serine/threonine protein
540	putative protein		phosphatase (type 2A)
541	putative tetrahydrofolate	572	isopentenyl
	synthase		diphosphate:dimethylallyl
542	heat-shock protein		diphosphate isomerase (IPP2)
543	unkown protein	573	putative c2h2 zinc finger
544	unknown protein		transcription factor
545	histone H4	574	putative 20S proteasome beta
546	hypothetical protein		nit PBC2
547	unknown protein	575	nucleoside diphosphate kinase 3
548	putative protein	(ndpl	
549	predicted protein	576	ras-related small GTP-binding
550	putative dihydrolipoamide	prote	
	succinyltransferase	<i>577</i>	putative 4-coumarate:CoA ligase 2
551	actin 3		

578	transcription factor HBP-10	609	photosystem if oxygen-evolving
	homolog (sp P43273)	610	complex protein 3 - like
579	biotin synthase (Bio B)	610	sedoheptulose-bisphosphatase
580	homeobox protein HAT22		precursor
581	putative preprotein	611	glutathione S-transferase (GST6)
	translocase SECY protein	612	geranylgeranyl reductase
582	carbamoylphosphate	613	hypothetical protein
	synthetase, putative	614	hypothetical protein
583	putative protein kinase,	615	phosphoribulokinase precursor
ADK1	· -	616	high mobility group protein
584	putative nuclear DNA-		(HMG1), putative
	binding protein G2p	617	protease inhibitor II
585	hypothetical protein	618	protease inhibitor II
586	hypothetical protein	619	cytochrome P450 90A1
587	unknown protein		(sp Q42569)
588	unknown protein	620	unknown protein
589	molybdopterin synthase	621	heat shock protein 90
	(CNX2)	622	tubulin beta-9 chain
590	putative ribosomal protein	623	putative ubiquitin carboxyl
L6			terminal hydrolase
591	unknown protein	624	protein kinase
592	En/Spm-like transposon	625	DRE/CRT-binding protein
protei	-		DREB1C
593	putative protein	626	histidyl-tRNA synthetase
594	putative protein	627	splicing factor, putative
595	unknown protein	628	glutamyl-tRNA synthetase
596	hypothetical protein	629	putative RING zinc finger protein
597	unknown protein	630	phytochelatin synthase
598	unknown protein		(gb AAD41794.1)
599	putative lysosomal acid	631	putative C2H2-type zinc finger
lipase	•		protein
600	unknown protein	632	putative ligand-gated ion channel
601	unknown protein		protein
602	NifS-like aminotranfserase	633	putative ribosomal-protein S6
603	actin 8		kinase (ATPK6)
604	hypothetical protein	634	MOLYBDOPTERIN
605	putative protein		BIOSYNTHESIS CNX1
606	heat-shock protein (At-		PROTEIN
000	hsc70-3)	635	temperature-sensitive omega-3
607	putative protein disulfide		fatty acid desaturase, chloroplast
007	isomerase precursor		precursor (sp P48622)
608	adenosine nucleotide	636	adenylosuccinate synthetase
000	translocator	637	putative 14-3-3 protein
	Emmioone.	638	putative cytochrome P450

639	putative two-component response regulator 3 protein	667	putative receptor-like protein kinase
640	putative RING-H2 zinc	668	putative disease resistance protein
	finger protein ATL6	669	receptor-like protein kinase - like
641	No function assigned by	670	ubiquitin activating enzyme 2
TIGR			(gb AAB37569.1)
642	small zinc finger-like	671	No function assigned by TIGR
protein	-	672	putative receptor-like protein
643	hypothetical protein	V. =	kinase
644	MAP kinase (ATMPK6)	673	K+ transporter, AKT1
645	vacuolar ATP synthase,	674	shaggy-like kinase beta
putativ		675	heat shock protein 70
646	kinesin-like protein	676	plasma membrane intrinsic protein
647	serine/threonine-specific		la
	n kinase NAK	677	HSP90-like protein
648	No function assigned by	678	histone H1, putative
TIGR	110 14110101 45018200 07	679	unknown protein
649	ACTIN 2/7 (sp P53492)	680	dnaK-type molecular chaperone
650	phosphoglycerate kinase,	333	hsc70.1 - like
050	putative	681	gamma-glutamylcysteine
651	homeotic protein BEL1	001	synthetase
051	homolog	682	peroxidase (ATP22a)
652	proline iminopeptidase	683	putative serine carboxypeptidase
653	pasticcino 1	000	precursor
654	serine/threonine protein	684	putative dioxygenase
kinase	-	685	glucose transporter
655	cytochrome P450	686	NOI protein, nitrate-induced
033	monooxygenase	687	putative protein
	(CYP71B4)	688	putative protein
656	No function assigned by	689	unknown protein
TIGR		690	putative photosystem I reaction
657	putative GDSL-motif	0,0	center subunit II precursor
Q37	lipase/hydrolase	691	putative protein
658	putative protein	692	unknown protein
659	unknown protein	693	cobalamin biosynthesis protein
660	hypothetical protein	694	adenine nucleotide translocase
661	putative glycosylation	695	glutathione transferase, putative
enzyn	• • •	696	putative 60S ribosomal protein L21
662	No function assigned by	697	cytochrome P450 like protein
TIGR		698	cytochrome b245 beta chain
663	No function assigned by		homolog RbohAp108, putative
TIGR		699	RNA helicase, DRH1
664	unknown protein	700	putative aldolase
665	putative ABC transporter	701	farnesyltransferase subunit A
666	nifU-like protein		(FTA)

95

702	No function assigned by	725	putative protein
TIGR		726	NBD-like protein
703	putative putative sister-		(gb AAD20643.1)
	chromatide cohesion	727	AtHVA22c
	protein	728	unknown protein
704	calcium-dependent protein	729	phytoene synthase
	kinase		(gb AAB65697.1)
705	serine/threonine protein	730	protein kinase (AME2/AFC1)
	phosphatase type 2A,	731	hypothetical protein
	putative	732	cyclin-dependent protein kinase-
706	40S ribosomal protein S28		like protein
	(sp P34789)	733	photosystem II stability/assembly
707	RNA polymerase subunit		factor HCF136 (sp O82660)
708	DNA-damage-	734	hypothetical protein
	repair/toleration protein	735	DNA binding-like protein
	DRT102	736	putative protein
709	putative C2H2-type zinc	737	chorismate mutase
	finger protein	738	putative LRR receptor protein
710	putative adenosine		kinase
	phosphosulfate kinase	739	putative chalcone synthase
711	lipase	740	putative protein kinase
712	putative violaxanthin de-	741	replicase, putative
	epoxidase precursor	742	putative cysteine proteinase
	(U44133)	743	60S ribosomal protein L36
713	aromatic rich glycoprotein,	744	unknown protein
	putative	745	CLC-b chloride channel protein
714	putative fumarase	746	putative ribosomal protein S14
715	flavonol synthase (FLS)	747	histone H2B like protein
(sp Q9	96330)		(emb CAA69025.1)
716	response regulator 5,	748	60S ribosomal protein L2
putati	ve	749	60S ribosomal protein L15
717	sulfate transporter		homolog
718	putative floral homeotic	750	ribosomal protein S27
	n, AGL9	751	ribosomal protein
719	putative ethylene-inducible	752	60S ribosomal protein L12
	protein	753	60s ribosomal protein L34
720	C-8,7 sterol isomerase	754	putative ribosomal protein S10
721	TCH4 protein	755	drought-induced protein like
	(gb AAA92363.1)	756	blue copper-binding protein, 15K
722	hypothetical protein		(lamin)
723	putative urease accessory	757	calmodulin-like protein
	protein	758	putative protein
724	molybdopterin synthase	759	No function assigned by TIGR
	sulphurylase	760	alpha-mannosidase, putative
	(gb AAD18050.1)	761	uncoupling protein (ucp/PUMP)

762	homeodomain - like protein	786	calcium-dependent protein kinase
763	ribosomal protein S18,	(pir S	71196)
putati	ve	787	phosphoinositide specific
764	similar to SOR1 from the		phospholipase C
	fungus Cercospora	788	similarity to S-domain receptor-
	nicotianae		like protein kinase, Zea mays
765	60S ribosomal protein L13,	789	mitosis-specific cyclin 1b
	BBC1 protein	790	4-coumarate:CoA ligase 3
766	50S ribosomal protein L24,	791	transcription factor IIB (TFIIB)
	chloroplast precursor	792	unknown protein
767	putative ribosomal protein	793	hypothetical protein
768	unknown protein	794	hypothetical protein
769	aspartate aminotransferase	795	sugar transporter like protein
	(AAT1)	796	putative trypsin inhibitor
770	potassium channel protein	797	unknown protein
	AtKC	798	putative multispanning membrane
771	unknown protein		protein
772	peroxisomal targeting	799	receptor-like kinase, putative
	signal type 2 receptor	800	putative inosine-5-monophosphate
773	putative protein		dehydrogenase
774	Ras-related GTP-binding	801	inosine-5'-monophosphate
	protein (ARA-4)		dehydrogenase, putative
775	S-receptor kinase homolog	802	amino acid permease 6
	2 precursor		(emb CAA65051.1)
776	pathogenesis-related group	803	NADPH-ferrihemoprotein
	5 protein, putative		reductase (ATR2)
777	Nitrilase 4 (sp P46011)	804	putative WRKY-type DNA binding
778	biotin carboxyl carrier		protein
	protein of acetyl-CoA	805	putative ankyrin
	carboxylase precursor	806	putative hexose transporter
	(BCCP) (sp Q42533)	807	aquaporin/MIP - like protein
779	photosystem I reaction	808	Ser/Thr protein kinase isolog
	centre subunit psaN	809	pectate lyase like protein
	precursor (PSI-N)	810	putative 60S ribosomal protein L17
	(sp P49107)	811	putative protein
780	3(2),5-bisphosphate	812	unknown protein
	nucleotidase	813	phenylalanine ammonia-lyase
781	high affinity Ca2+	814	putative cytochrome P450
antipo		0.1.5	monooxygenase
782	putative cytoskeletal	815	ARR1 protein, putative
protei		816	putative bHLH transcription factor
783	putative peroxidase	817	aminomethyltransferase-like
784	respiratory burst oxidase		precursor protein
protei		818	purple acid phosphatase precursor
785	beta-glucosidase		

819	AP2 domain containing	844	mercaptopyruvate
	protein, putative		sulfurtransferase, putative
820	ubiquitin-conjugating	845	putative thiosulfate
	enzyme E2-21 kD 1		sulfurtransferase
	(ubiquitin-protein ligase 4)	846	dihydrolipoamide S-
	(ubiquitin carrier protein 4)		acetyltransferase
	(splP42748)	847	auxin transport protein REH1,
821	translation initiation factor		putative
822	putative VAMP-associated	848	putative auxin transport protein
	protein	849	apyrase (Atapy1)
823	spermidine synthase,	850	root cap 1 (RCP1)
putati	•	851	hypothetical protein
824	putative protein	852	putative protein
825	unknown protein	853	predicted protein of unknown
826	AtKAP alpha	functi	on
827	glyceraldehyde-3-	854	hypothetical protein
· -	phosphate dehydrogenase,	855	hypothetical protein
	putative	856	hypothetical protein
828	putative poly(A) binding	857	putative aldehyde dehydrogenase
0_0	protein	858	putative peroxidase
829	alpha-tubulin, putative	859	UDP-glucose 4-epimerase - like
830	serine/threonine-specific		protein
	protein kinase ATPK64	860	indole-3-acetate beta-
	(pir S20918)		glucosyltransferase like protein
831	putative aspartate-tRNA	861	putative beta-1,3-glucanase
ligase	-	862	disease resistance protein-like
832	ras-related small GTP-	863	putative respiratory burst oxidase
	binding protein RAB1c		protein B
833	cycloartenol synthase	864	ubiquitin-conjugating enzyme
834	No function assigned by		UBC3
TIGR		865	cytoplasmic aconitate hydratase
835	cytochrome P450	866	NADPH oxidoreductase, putative
836	GTPase AtRAB8	867	PROTEIN TRANSPORT
837	3-phosphoserine		PROTEIN SEC61 GAMMA
	phatase		SUBUNIT -like
838	transcription factor CRC	868	putative protein
839	nuclear cap-binding	869	unknown protein
	protein; CBP20	870	60S acidic ribosomal protein P2
	(gb AAD29697.1)	871	No function assigned by TIGR
840	chloroplast membrane	872	1,4-alpha-glucan branching
	protein (ALBINO3)		enzyme protein soform SBE2.2
841	biotin holocarboxylase		precursor
	synthetase	873	calcium binding protein (CaBP-22)
842	expansin AtEx6	874	putative phosphoglucomutase
843	unknown protein		

875	shaggy-like protein kinase	901	putative RAS superfamily GTP-
076	etha (EC 2.7.1)	002	binding protein
876	pyruvate decarboxylase	902 903	disease resistance protein-like
077	(gb AAB16855.1)		protein kinase like protein
877	hypothetical protein	904	glucuronosyl transferase-like
878	putative protein kinase	005	protein
879	putative protein kinase	905	putative homeodomain
880	putative leucine	006	transcription factor
	aminopeptidase	906	putative flavonol reductase
881	probable cytochrome P450	907	putative protein
882	protein kinase 6-like protein	908	salt-tolerance protein
383	arginine methyltransferase	909	40S ribosomal protein S30
	(pam1)	910	putative bZIP transcription factor
884	MYB96 transcription	911	putative protein
	factor-like protein	912	putative cinnamoyl CoA reductase
885	putative protein	913	unknown protein
886	metal ion transporter	914	putative RNA-binding protein
887	No function assigned by	915	phosphatidylinositol synthase
TIGR		(PIS1)	
888	flax rust resistance protein,	916	unknown protein
	putative	917	hydroxyproline-rich glycoprotein
889	fructose-2,6-	homol	log
	bisphosphatase, putative	918	50S ribosomal protein L15,
890	exonuclease RRP41	chlore	plast precursor
891	squamosa promoter binding	919	unknown protein
	protein-like 2	920	putative YME1 ATP-dependant
	(emb CAB56576.1)		protease
892	putative squamosa-	921	unknown protein
	promoter binding protein	922	putative ribosomal protein L28
893	O-acetylserine(thiol) lyase,	923	unknown protein
	putative	924	putative protein
894	snoRNA	925	protein ch-42 precursor,
895	snoRNA		chloroplast
896	ferredoxin-NADP+	926	protein serine/threonine kinase,
reduct			putative
897	H+-transporting ATP	927	beta-VPE
0,7	synthase chain 9 - like	928	putative vacuolar sorting receptor
	protein	929	putative translation initiation factor
898	photosystem I subunit III		IF-2
070	precursor, putative	930	predicted protein of unknown
899	photosystem I subunit VI		function
U)	precursor	931	putative protein
900	auxin-binding protein 1	932	hypothetical protein
700	precursor	933	hypothetical protein
	procursor	934	phosphate transporter, putative
		, , ,	

935 TIGR	No function assigned by	961 962	unknown protein unknown protein
936	beta subunit of protein	963	unknown protein
750	farnesyl transferase ERA1	964	myrosinase-associated protein,
937	putative glutamate		putative
	decarboxylase	965	hypothetical protein
938	putative indole-3-acetate	966	hypothetical protein
	beta-glucosyltransferase	967	No function assigned by TIGR
939	putative receptor-like	968	unknown protein
	protein kinase	969	hypothetical protein
940	UDP-galactose 4-	970	LAX1 / AUX1 -like permease
	epimerase-like protein	971	putative UDP-N-
941	putative proliferating cell		acetylglucosaminedolichyl-
<i>,</i> , ,	nuclear antigen, PCNA		phosphate N-
942	ubiquitin conjugating		acetylglucosaminephosphotransfer
J . L	enzyme E2 (UBC13)		ase
943	cyclophilin (CYP2)	972	chorismate mutase CM2
944	cystatin	973	inner mitochondrial membrane
	CAA03929.1)		protein
945	putative alcohol	974	DEF (CLA1) protein
	rogenase	975	decoy
946	acidic ribosomal protein pl	976	citrate synthase
947	glutathione transferase	977	myosin
<i>)</i>	AtGST 10	978	40S ribosomal protein S19
	(emb CAA10457.1)	979	ripening-related protein - like
948	putative tropinone	980	putative signal peptidase I
reduct	-	981	methionyl-tRNA synthetase
949	ZIP4, a putative zinc		(AtcpMetRS)
, , ,	transporter	982	ribosomal protein precursor - like
950	unknown protein	983	50S ribosomal protein L21
951	putative protein		chloroplast precursor (CL21)
952	putative protein	984	putative MYB family transcription
953	putative C2H2-type zinc	factor	•
,,,,	finger protein	985	cyclophilin - like protein
954	putative RING zinc finger	986	hypothetical protein
,,,,	protein	987	naringenin 3-dioxygenase like
955	putative microtubule-	protei	n
,,,,	associated protein	988	WD-repeat protein -like protein
956	unknown protein	989	putative serine carboxypeptidase II
957	putative protein	990	prenyltransferase, putative
958	putative protein	991	putative ligand-gated ion channel
	phatase-2c		protein
959	V-ATPase subunit G (vag2	992	clathrin adaptor medium chain
,,,	gene)		protein MU1B, putative
960	hypothetical protein	993	No function assigned by TIGR
700	hypothetical pro-		

994	putative lall-like non-	1025	putative tropinone reductase
	LTR retroelement protein	1026	signal response protein (GAI)
995	putative 3-isopropylmalate	1027	putative steroid sulfotransferase
	dehydrogenase	1028	hypothetical protein
996	3-isopropylmalate	1029	nucleic acid binding protein - like
	dehydratase, small subunit	1030	putative protein
997	unknown protein	1031	blue copper binding protein
998	unknown protein	1032	farnesylated protein (ATFP6)
999	unknown protein	1033	unknown protein
1000	hypothetical protein	1034	putative PCF2-like DNA binding
1001	putative protein		protein
1002	No function assigned by	1035	teosinte branched1 - like protein
TIGR		1036	putative protein
1003	putative beta-glucosidase	1037	unknown protein
1004	putative pectate lyase A11	1038	unknown protein
1005	putative beta-glucosidase	1039	2-oxoglutarate dehydrogenase, E1
1006	HD-Zip protein		component
1007	putative ubiquitin	1040	unknown protein
	conjugating enzyme	1041	unknown protein
1008	homeobox-leucine zipper	1042	CCAAT-binding transcription
	protein-like		factor subunit A(CBF-A)
1009	cytochrome P450 like	1043	hypothetical protein
proteir		1044	putative growth regulator protein
1010	putative cysteine proteinase	1045	putative presenilin
	inhibitor B (cystatin B)	1046	putative expansin
1011	ethylene response sensor	1047	ribosomal - like protein
(ERS)	·	1048	unknown protein
1012	putative SWH1 protein	1049	unknown protein
1013	putative glutathione S-	1050	putative protein
	transferase	1051	putative protein
1014	putative protein	1052	unknown protein
1015	unknown protein	1053	unknown protein
1016	putative protein	1054	unknown protein
	phosphatase 2C	1055	unknown protein
1017	dnaJ protein homolog atj3	1056	unknown protein
1018	ferredoxin	1057	putative protein
1019	hypothetical protein	1058	putative protein
1020	putative sugar transport	1059	argininosuccinate lyase (AtArgH)
	protein, ERD6	1060	disease resistance protein homolog
1021	putative DnaJ protein	1061	aldehyde dehydrogenase like
1022	putative AP2 domain	protei	
	transcription factor	1062	GBF2, G-box binding factor
1023	putative protein	1063	CDPK-related kinase
1024	putative cyclin-dependent	1064	endo-1,4-beta-glucanase
	kinase regulatory subunit	1065	putative serine protease

1066	serine/threonine-specific	1091	putative ATP-dependent RNA
	lecRK1 precursor, lectin	2071	helicase
recepto		1092	putative protein
1067	putative MAP kinase	1093	putative HMG protein
1068	RNase L inhibitor-like	1094	squalene monooxygenase 2
protein		105.	(squalene epoxidase 2) (SE 2)
1069	No function assigned by		(sp 065403)
TIGR	1.0 randion applica by	1095	
1070	AP2 domain transcription	1093	eukaryotic peptide chain release factor subunit 1, putative
	factor	1096	auxin-induced protein - like
1071	polygalacturonase	1090	
1071	isoenzyme 1 beta subunit,	1097	putative lipoamide dehydrogenase
	putative	1098	putative protein
1072	putative lipid transfer		unknown protein
protein		1100	putative oligopeptide transporter
1073	putative protein kinase	1101	putative translation elongation
1073	_	1100	factor ts
	putative protein	1102	putative CCAAT-binding
1075	ATP-dependent RNA	* * * * * *	transcription factor subunit
1076	helicase like protein	1103	putative ABC transporter
1076	putative cyclic nucleotide-	1104	putative superoxide-generating
	regulated ion channel		NADPH oxidase flavocytochrome
1000	protein	1105	aspartate kinase-homoserine
1077	COP1 like protein		dehydrogenase - like protein
1078	putative peroxidase	1106	putative bHLH transcription factor
1079	putative NAK-like ser/thr	1107	putative geranylgeranyl transferase
	protein kinase		type I beta subunit
1080	putative cytochrome C	1108	putative ARP2/3 protein complex
1081	cytochrome c		subunit p41
1082	putative serine	1109	sulphite reductase
	carboxypeptidase II	1110	putative auxin-regulated protein
1083	acyl-(acyl carrier protein)	1111	transcription factor scarecrow-like
	thioesterase		14, putative
1084	DNA-binding factor,	1112	unknown protein
putativ	re	1113	monooxygenase 2 (MO2)
1085	MAP3K delta-1 protein	1114	putative amine oxidase
kinase	-	1115	zinc finger protein, putative
1086	AtMlo-h1-like protein	1116	DNA-binding protein, putative
1087	No function assigned by	1117	putative protein
TIGR		1118	putative protein
1088	putative expansin	1119	Avr9 elicitor response like protein
1089	defender against cell death	1120	putative protein
	protein, putative	1121	hypothetical protein
1090	glycolate oxidase - like	1122	putative nucleotide-sugar
protein	- -	1122	dehydratase
Process	•	1123	UFD1 like protein
		1143	OY DI HYC PHOTEIII

1124	putative trans-	1155	cytochrome c oxidoreductase like
prenyl	transferase		protein
1125	outward rectifying	1156	putative
	potassium channel KCO		carboxymethylenebutenolidase
1126	unknown protein	1157	unknown protein
1127	putative	1158	unknown protein
pectina	acetylesterase	1159	unknown protein
1128	putative protein	1160	unknown protein
1129	No function assigned by	1161	unknown protein
TIGR	Ş ,	1162	unknown protein
1130	unknown protein	1163	auxin-induced protein (IAA20)
1131	unknown protein	1164	50S ribosomal protein L4
1132	unknown protein	1165	putative DNA topoisomerase III
1133	protein phosphatase		beta
	og (PPH1)	1166	No function assigned by TIGR
1134	unknown protein	1167	isp4 like protein
1135	No function assigned by	1168	putative protein kinase
TIGR	1 10 1441011011 4151281101 57	1169	hypothetical protein
1136	unknown protein	1170	putative pyrophosphatefructose-
1137	unknown protein	1170	6-phosphate 1-phosphotransferase
1138	unknown protein	1171	putative protein
1139	putative protein	1172	putative protein
1140	unknown protein	1173	putative protein
1141	putative ubiquinol	1174	unknown protein
** • •	cytochrome-c reductase	1175	unknown protein
1142	unknown protein	1176	putative protein
1142	contains similarity to high-	1177	putative protein
1115	glucose-regulated protein 8	1178	unknown protein
	GB:AAF08813 GI:6449083	1179	unknown protein
•	from [Homo sapiens]	1180	putative protein
1144	unknown protein	1181	brassinosteroid insensitive 1 gene
1145	putative cis-Golgi SNARE	*101	(BRI1)
1173	protein	1182	putative receptor protein kinase
1146	unknown protein	1183	vacuolar-type H+-translocating
1147	glutamate-1-semialdehyde	1105	inorganic pyrophosphatase
1147	aminotransferase	1184	protein kinase - like protein
1148	No function assigned by	1185	glycyl tRNA synthetase, putative
TIGR		1186	subtilisin proteinase - like
1149	hypothetical protein	1187	hypothetical protein
1150	unknown protein	1188	cytochrome P450-like protein
1151	unknown protein	1189	cytochrome p450 like protein
1151	unknown protein	1190	putative protein kinase
1152	scarecrow-like 3	1191	pectinesterase - like protein
1153	putative proline-rich protein	1191	putative receptor-like protein
1134	putative profine-from protein	11/2	kinase

1193	peroxidase ATP17a -like protein	1219	putative AP2 domain transcription factor
1194	No function assigned by	1220	brassinosteroid receptor kinase,
TIGR	The famous is about the	1220	putative
1195	cellulose synthase catalytic	1221	TINY-like protein
1175	subunit - like protein	1222	glucose-6-phosphate isomerase
1196	RAS-related protein, RAB7	1223	putative protein
1197	putative aspartate	1224	putative protein putative NAM (no apical
1191	aminotransferase	1224	meristem)-like protein
1198	cyclophilin	1225	· •
	putative SF2/ASF splicing	1225	unknown protein
1199		1220	putative nucleotide-binding protein
1200	modulator, Srp30	1228	bZIP transcription factor (POSF21)
1200	putative cytochrome b5	1220	ubiquitin activating enzyme - like
1201	glutamyl-tRNA reductase,	1220	protein
1202	putative MADS have protein	1229	telomere repeat-binding protein
1202	putative MADS-box protein	1230	unknown protein
1203	ammonium transport	1231	mevalonate kinase
1004	protein (AMT1)	1232	putative protein
1204	No function assigned by	1233	hypothetical protein
TIGR		1234	disease resistance RPP5 like
1205	putative beta-ketoacyl-CoA	1005	protein
syntha		1235	putative protein
1206	thaumatin-like protein	1236	putative pectinesterase
1207	putative methionine	1237	Ttg1 protein (emb CAB45372.1)
	peptidase	1238	FUSCA PROTEIN FUS6
1208	putative protein	1239	NHE1 Na+/H+ exchanger
	hatase 2C	1240	No function assigned by TIGR
	kinase-like protein	1241	Phospholipase like protein
1210	receptor-associated kinase	1242	unknown protein
isolog		1243	unknown protein
1211	mitochondrial ribosomal	1244	unknown protein
proteir		1245	AUX1-like amino acid permease
	oleosin, 18.5K	1246	unknown protein
1213	chalcone isomerase	1247	putative C2H2-type zinc finger
1214	putative cyclin-dependent		protein
	kinase regulatory subunit	1248	putative protein
1215	putative thaumatin-like	1249	putative protein
protein	n	1250	putative glucosyltransferase
1216	putative two-component	1251	putative lipase
	response regulator protein	1252	putative protein
1217	TATA binding protein-	1253	putative thioredoxin
	associated factor, putative	1254	AIG2-like protein
1218	predicted protein of	1255	short-chain alcohol dehydrogenase
	unknown function		like protein
		1256	hypothetical protein

1257	putative protein	1287	No function assigned by TIGR
1258	putative protein	1288	serine/threonine protein kinase
1259	glutathione peroxidase -		ATPK10
	like protein	1289	putative lipase
1260	putative protein	1290	choline kinase GmCK2p -like
1261	putative disease resistance		protein
	response protein	1291	putative sugar transport protein,
1262	putative protein		ERD6
1263	senescence-associated	1292	MYB27 protein - like
	protein (SAG29)	1293	DNA-binding protein, putative
1264	glycolate oxidase, putative	1294	similar to cold acclimation protein
1265	extensin - like protein		WCOR413 [Triticum aestivum]
1266	putative protein	1295	unknown protein
1267	unknown protein	1296	aquaporin (plasma membrane
1268	putative disease resistance		intrinsic protein 2B)
	protein	1297	No function assigned by TIGR
1269	putative receptor-like	1298	P-Protein - like protein
	protein kinase	1299	No function assigned by TIGR
1270	putative receptor-like	1300	putative cytochrome P450
	protein kinase		monooxygenase
1271	basic chitinase	1301	putative cytochrome P450
1272	putative pectin		monooxygenase
methy	lesterase	1302	putative thioredoxin
1273	peroxidase ATP N	1303	stromal ascorbate peroxidase
1274	class 2 non-symbiotic	1304	ethylene responsive element
	hemoglobin		binding factor-like protein
1275	nitrate transporter		(AtERF6)
1276	Ca2+/H+-exchanging	1305	auxin transport protein EIR1
	protein-like		(gb AAC39513.1)
1277	putative protein	1306	putative CONSTANS-like B-box
1278	hydroxynitrile lyase like		zinc finger protein
protei	n	1307	putative protein kinase
1279	putative AP2 domain	1308	mitochondrial Lon protease
	ription factor		homolog 1 precursor (sp O64948)
1280	pectin methylesterase,	1309	putative protein
putati		1310	heme activated protein, putative
1281	putative protein	1311	putative cytochrome P450
1282	beta-glucosidase-like	1312	No function assigned by TIGR
protei		1313	putative lipase
	CCAAT box binding factor/	1314	putative protein
	cription factor Hap2a	1315	putative sugar transporter protein
1284	putative fibrillin	1316	putative sucrose transport protein,
1285	xyloglucan endo-		SUC2
	transglycosylase	1317	putative protein
1286	putative 10kd chaperonin	1318	putative protein

1319	putative endocnitinase	1331	unknown protein
1320	putative acetone-	1352	bZIP transcription factor - like
	cyanohydrin lyase	protein	ı.
1321	putative protein	1353	Medicago nodulin N21-like protein
1322	calmodulin-like protein	1354	putative endo-1,4-beta glucanase
1323	hypothetical protein	1355	1-aminocyclopropane-1-
1324	cysteine proteinase like		carboxylate oxidase
protein	1	1356	putative anion exchange protein
1325	heat shock protein 17.6-II	1357	SRG1-like protein
1326	heat shock protein 18	1358	putative protein
1327	Arabidopsis mitochondrion-	1359	putative phi-1-like phosphate-
	localized small heat shock		induced protein
	protein (AtHSP23.6-mito)	1360	putative protein
1328	unknown protein	1361	putative embryo-abundant protein
1329	putative WRKY-type DNA	1362	putative hydrolase
	binding protein	1363	unknown protein
1330	No function assigned by	1364	unknown protein
TIGR	•	1365	hexose transporter - like protein
1331	hypothetical protein	1366	unknown protein
1332	putative integral membrane	1367	unknown protein
	protein nodulin	1368	peptide transport - like protein
1333	putative protein	1369	unknown protein
1334	unknown protein	1370	putative peptide transporter
1335	3-isopropylmalate	1371	disease resistance protein, putative
	dehydratase, small subunit	1372	cysteine protease component of
1336	unknown protein		protease-inhibitor complex
1337	putative homeodomain	1373	putative cytochrome P450
	transcription factor	1374	putative protein
1338	unknown protein	1375	hypothetical protein
1339	putative protein	1376	unknown protein
1340	peroxidase ATP19a	1377	putative
1341	putative Na+/H+-		phosphoribosylaminoimidazolecar
	exchanging protein		boxamide formyltransferase
1342	putative auxin-regulated	1378	putative protein
	protein	1379	HSP like protein
1343	unknown protein	1380	unknown protein
1344	unknown protein	1381	unknown protein
1345	putative trehalose-6-	1382	putative cytochrome P450
	phosphate synthase	1383	similar to pectinesterase
1346	putative lectin	1384	putative glucosyltransferase
1347	-	1385	thaumatin-like protein
1348	→	1386	5
1349	-	1007	proteinase RD19A precursor
putati		1387	vegetative storage protein Vsp2
1350	unknown protein	1388	unknown protein

1389	unknown protein	1417	G-box binding bZIP transcription
1390	anthranilate N-		factor
	benzoyltransferase - like	1418	putative protein
	protein	1419	putative protein
1391	delta-1-pyrroline 5-	1420	putative protein
	carboxylase synthetase	1421	ATFP4-like
	(P5C1)	1422	unknown protein
1392	glutathione S-conjugate	1423	unknown protein
	transporting ATPase	1424	putative protein
	(AtMRP1)	1425	invertase inhibitor homolog
1393	hypothetical protein		CAA73335.1)
1394	hypothetical protein	1426	unknown protein
1395	unknown protein	1427	unknown protein
1396	putative protein	1428	putative cytochrome b5
1397	putative protein	1429	putative protein
1398	No function assigned by	1430	putative protein
TIGR	3.= . .	1431	putative protein
1399	unknown protein	1432	No function assigned by TIGR
1400	putative protein kinase	1433	putative copper/zinc superoxide
1401	unknown protein	- 100	dismutase
1402	hypothetical protein	1434	protein phosphatase ABII
1403	unknown protein	1435	glutamate dehydrogenase 2
1404	putative calcium-binding	1436	No function assigned by TIGR
	EF-hand protein	1437	low-temperature-induced protein
1405	cinnamyl-alcohol		78 (sp Q06738)
	dehydrogenase ELI3-1	1438	putative myo-inositol 1-phosphate
1406	putative protein		synthase
1407	unknown protein	1439	phosphate transporter
1408	senescence-associated		(gb AAB17265.1)
	protein sen1	1440	4-hydroxyphenylpyruvate
1409	hypothetical protein		dioxygenase (HPD)
1410	putative cytochrome P450	1441	histone H1
1411	proline oxidase,	1442	hypothetical protein
	mitochondrial precursor	1443	No function assigned by TIGR
	(osmotic stress-induced	1444	neoxanthin cleavage enzyme-like
	proline dehydrogenase)		protein
1412	putative response regulator	1445	dehydration-induced protein RD22
3		1446	zinc finger protein ZAT7
1413	hypothetical protein	1447	unknown protein
1414	glutamine-dependent	1448	unknown protein
	asparagine synthetase	1449	unknown protein
1415	lysine-ketoglutarate	1450	unknown protein
	reductase/saccharopine	1451	putative protein
1416	En/Spm-like transposon	1452	putative protein
proteir	1	1453	RNA helicase, putative

1454	putative glycine-rich	1483	unknown protein
proteir	1	1484	cold and ABA inducible protein
1455	hypothetical protein		kin1
1456	putative protein	1485	gamma-VPE (vacuolar processing
1457	peroxidase		enzyme)
1458	peroxidase ATP3a	1486	putative protein 1 photosystem II
	(emb CAA67340.1)		oxygen-evolving complex
1459	metallothionein-like protein	1487	myrosinase-associated protein,
1460	endomembrane-associated		putative
	protein	1488	transcription factor ATMYB4
1461	ferritin 1 precursor	1489	H-protein promoter binding factor-
1462	dehydrin RAB18-like		2a
	protein (sp P30185)	1490	ammonium transporter, puitative
1463	HSR201 like protein	1491	putative zeta-carotene desaturase
1464	light regulated protein,		precursor
putativ	9	1492	high-affinity nitrate transporter
1465	Dr4(protease inhibitor)		NRT2
1466	mitogen activated protein	1493	light induced protein like
	kinase kinase (nMAPKK)	1494	putative AT-hook DNA-binding
1467	glutathione S-transferase	proteir	ı
1468	transcriptional activator	1495	putative glycogenin
	CBF1/ CRT/CRE binding	1496	putative light repressible receptor
	factor 1	proteir	n kinase
1469	homeobox-leucine zipper	1497	serine/threonine kinase - like
	protein ATHB-12	proteir	
1470	amino acid permease I	1498	putative peroxidase
1471	MAP kinase (ATMPK7)	1499	cytochrome P450 monooxygenase
1472	potassium channel protein	(CYP	
	AKT3	1500	MYB-related transcription factor
1473	cytochrome P450		(CCA1)
	monooxygenase	1501	Terminal flower1 (TFL1)
	(CYP91A2)	1502	sulfate transporter ATST1
1474	putative transport protein	1503	RING-H2 finger protein RHA3b
1475	putative protein	1504	lipoxygenase, putative
1476	-	1505	serine O-acetyltransferase (EC
1477			2.3.1.30) Sat-52 (pir S71207)
1478		1506	ferulate-5-hydroxylase (FAH1)
1479	- -	1507	En/Spm-like transposon protein,
	protein	4	putative
1480		1508	calmodulin-binding - like protein
	kinase - like protein	1509	hypothetical protein
1481		1510	somatic embryogenesis receptor-
	protein		like kinase -like protein
1482		1511	putative giberellin beta-
	AAP2	•	hydroxylase

1512	putative pectinesterase	1542	60S acidic ribosomal protein P0
1513	putative protein	1543	putative protein
1514	unknown protein	1544	auxin-induced protein, putative
1515	ribosomal protein	1545	unknown protein
1516	low-temperature-induced	1546	hypothetical protein
	65 kD protein (sp Q04980)	1547	protein phosphatase 2C ABI2
1517	putative glucosyltransferase		(PP2C) (sp O04719)
1518	peroxidase	1548	peroxidase, prxr2
	CAA67551.1)	1549	putative peroxidase ATP12a
Ì519	ankyrin-liké protein	1550	putative beta-amylase
1520	ribosomal protein S11 - like	1551	putative acetone-cyanohydrin lyase
1521	hypothetical protein	1552	fatty acid elongase 3-ketoacyl-CoA
1522	glycoprotein(EP1), putative		synthase 1
1523	calnexin - like protein	1553	putative citrate synthase
1524	SRG1-like protein	1554	pEARLI 1-like protein
1525	ethylene response factor 1	1555	putative MYB family transcription
	(ERF1)		factor
1526	transcriptional activator	1556	putative transcription factor
	CBF1-like protein		MYB28
1527	xyloglucan endo-1,4-beta-	1557	RNA helicase-like protein
	D-glucanase (XTR-6)	1558	snoRNA
1528	putative cinnamyl alcohol	1559	putative protein kinase
	dehydrogenase	1560	growth regulator like protein
1529	gibberellin 3 beta-	1561	putative potassium transporter
	hydroxylase, putative	1562	putative protein
1530	auxin response transcription	1563	60S ribosomal protein L14
	factor 3 (ETTIN/ARF3)	1564	unknown protein
1531	No function assigned by	1565	putative RING-H2 zinc finger
TIGR		proteir	1
1532	putative protein	1566	putative pollen surface protein
1533	similar to avrRpt2-induced	1567	unknown protein
	protein 1	1568	unknown protein
1534	unknown protein	1569	unknown protein
1535	hypothetical protein	1570	putative Ca2+-ATPase
1536	putative protein kinase	1571	1-aminocyclopropane-1-
1537	respiratory burst oxidase -		cylate synthase -like protein
	like protein	1572	putative beta-glucosidase
1538	glucose-6-	1573	transcription factor ZAP1
	phosphate/phosphate-	1574	oligopeptide transporter, putative
	translocator precursor,	1575	putative protein
	putative	1576	putative glucosyltransferase
1539	class 1 non-symbiotic	1577	putative serine/threonine kinase
	hemoglobin (AHB1)	1578	squalene epoxidase - like protein
1540	endochitinase isolog	1579	similar to 14KD proline-rich
1541	putative cytochrome P450		protein DC2.15 precursor

109

	(sp P14009); similar to	1612	DnaJ-like protein
	ESTs emb Z17709 and	1613	putative inositol polyphosphate-5-
	emb Z47685		phosphatase
1580	unknown protein	1614	putative cytochrome P450
1581	unknown protein	1615	putative protein
1582	hypothetical protein	1616	unknown protein
1583	60S ribosomal protein L38	1617	putative protein
1584	flavin-containing	1618	hypothetical protein
100.	monooxygenase, putative	1619	putative protein
1585	remorin	1620	sucrose-UDP glucosyltransferase
1586	unknown protein	1621	glucose-6-phosphate 1-
1587	putative protein		dehydrogenase.
1588	lipoxygenase	1622	unknown protein
1589	cold-regulated protein	1623	mitochondrial chaperonin (HSP60)
1305	COR6.6 (KIN2)	1624	sucrose transport protein SUC1
1590	Myb transcription factor	1625	putative protein disulfide isomerase
1370	homolog (ATR1)	1626	putative pollen-specific protein
1591	putative protein	1627	integral membrane protein,
1592	unknown protein		putative
1593	unknown protein	1628	rubredoxin, putative
1594	Ca2+-transporting ATPase	1629	putative protein
155.	- like protein	1630	disease resistance protein RPS4,
1595	protein phosphatase 2C		putative
1070	(AtP2C-HA)	1631	putative peptide/amino acid
1596	peroxidase ATP24a		transporter
1597	branched-chain alpha keto-	1632	peroxidase, putative
	acid dehydrogenase,	1633	ethylene receptor, putative (ETR2)
	putative	1634	protein phosphatase 2C (PP2C)
1598	putative beta-ketoacyl-CoA	1635	putative glutathione S-transferase
1000	synthase	1636	
1599		(ATI	HB-7)
1600		1637	putative nitrate transporter
1601		1638	putative ribosomal protein L9,
1602	- · · · · · · · · · · · · · · · · · · ·	cytos	
1603		1639	
	NAC domain protein,	1640	
putat		1641	
1605		1642	
1606	late embryogenesis	1643	
	abundant protein LEA like		oserine dehydrogenase
1607	- •	164	
1608	3 putative protein		ain transcription factor
1609	dehydrin Xero2	164.	
1610		164	-
161	<u> </u>		protein

1647	putative ribonuclease	1676	pathogenesis-related protein 1
1648	hypothetical protein		precursor, 19.3K
1649	putative DNA-binding	1677	R2R3-MYB transcription factor
protein	1	1678	hypothetical protein
1650	nodulin-like protein	1679	putative chitinase
1651	trehalose-6-phosphate	1680	Mlo protein, putative
	phosphatase - like protein	1681	putative WRKY-type DNA binding
1652	succinate dehydrogenase		protein
	flavoprotein alpha subunit	1682	putative acyl-CoA synthetase
	(emb CAA05025.1)	1683	putative pathogenesis-related
1653	unknown protein		protein
1654	stress related protein,	1684	putative chitinase
putativ	- /e	1685	germin precursor oxalate oxidase
1655	putative chloroplast	1686	endoxyloglucan transferase,
	initiation factor 3		putative
1656	putative protein	1687	putative protein
1657	hypothetical protein	1688	putative cytochrome P450
1658	putative CCCH-type zinc	1689	similar to Mlo proteins from H.
	finger protein		vulgare
1659	similar to harpin-induced	1690	putative tropinone reductase
	protein hin1 from tobacco	1691	extensin-like protein
1660	unknown protein	1692	putative sarcosine oxidase
1661	unknown protein	1693	putative protein
1662	hypothetical protein	1694	hypothetical protein
1663	No function assigned by	1695	late embryogenesis-abundant
TIGR			protein, putative
1664	putative protein	1696	beta-carotene hydroxylase
1665	putative glutathione S-	1697	putative calcium binding protein
	transferase TSI-1	1698	unknown protein
1666	putative protein	1699	unknown protein
1667	putative PTR2 family	1700	predicted glycosyl transferase
	peptide transporter	1701	hypothetical protein
1668	receptor kinase-like protein	1702	hypothetical protein
1669	putative sugar transport	1703	hypothetical protein
	protein, ERD6	1704	putative protein
1670	putative protein	1705	unknown protein
1671	nodulin-like protein	1706	putative protein
1672	unknown protein	1707	putative protein
1673	putative receptor-like	1708	serine/threonine kinase - like
	protein kinase		protein
1674		1709	- · · · · · · · · · · · · · · · · · · ·
	transporter AtMRP4	1710	•
1675	ascorbate oxidase-like	1711	• •
prote	in	1712	No function assigned by TIGR

111

1/13	pnenyiaianine ammonia		Coenzyme A 3-O-
lyase (PAL1)		methyltransferase
1714	peroxidase	1740	disease resistance protein EDS1
(emb C	CAA68212.1)	1741	putative protein kinase
	putative AMP deaminase	1742	Gluthatione reductase, chloroplast
1716	putative MYB family		precursor
transci	ription factor	1743	putative heat shock protein
1717	DNA-directed RNA	1744	aspartate kinase
polym	erase II, third largest subunit	1745	putative major intrinsic (channel)
1718	nucleotide pyrophosphatase		protein
	-like protein	1746	matrix metalloproteinase, putative
1719	putative peroxidase	1747	putative GDSL-motif
1720	calcium sensor homolog		lipase/hydrolase
	(gb AAC26110.1)	1748	putative protein
1721	putative GDSL-motif	1749	DAG-like protein
	lipase/hydrolase	1750	serine/threonine kinase -like
1722	putative nonspecific lipid-		protein
	transfer protein	1751	formamidase - like protein
1723	acyl-carrier protein (ACP),	1752	CER2
	putative	1753	26S proteasome subunit 4
1724	putative glycine	1754	pectinesterase like protein
dehyd	rogenase	1755	putative disease resistance protein
1725	AIG1	1756	putative RNA methyltransferase
1726	ACC synthase (AtACS-6)	1757	unknown protein
1727	cyclin delta-3	1758	HOMEOBOX PROTEIN
1728	putative RING zinc finger		KNOTTED-1 LIKE 4 (KNAT4)
	protein	1759	glycine-rich RNA-binding protein
1729	aldose 1-epimerase - like		AtGRP2 - like
	protein	1760	putative acetylornithine
1730	putative phospholipase		transaminase
1731	phosphoenolpyruvate	1761	putative Sec24-like COPII protein
	carboxylase	1762	putative berberine bridge enzyme
1732	putative galactinol synthase	1763	putative GH3-like protein
1733	unknown protein	1764	putative ABC transporter
1734	putative protein	1765	putative reticuline oxidase-like
1735	·		protein
	carboxylate oxidase	1766	pectate lyase - like protein
1736	•	1767	protein disulfide-isomerase-like
	(pir S58118)		protein
1737	<u>-</u>	1768	putative protein
	phosphatase	1769	putative membrane transporter
1738		1770	unknown protein
	(PR-2)	1771	unknown protein
1739		1772	putative RING-H2 zinc finger
	methionine:trans-caffeoyl-		protein

1773	unknown protein	1807	glycine-rich RNA binding protein
1774	unknown protein		7
1775	unknown protein	1808	dehydrin, putative
1776	MADS-box protein	1809	putative endoxyloglucan
(AGL2	0)		glycosyltransferase
1777		1810	glutamate decarboxylase 1 (GAD
	amidophosphoribosyltransf		1) (sp Q42521)
erase 2	precursor	1811	delta 9 desaturase
1778	putative dihydrodipicolinate	1812	UDP-glucose glucosyltransferase
synthas	se	1813	CARBONIC ANHYDRASE 2
1779	hypothetical protein	1814	response reactor 2 (ATRR2)
1780	ABA-responsive protein -	1815	S-adenosyl-methionine-sterol-C-
like	• •		methyltransferase, putative
1781	putative protein	1816	putative DNA-binding protein
1782	hypothetical protein		(RAV2-like)
1783	DNA-binding protein-like	1817	gamma glutamyl hydrolase,
1784	No function assigned by		putative
TIGR	2	1818	protein phosphatase - like
1785	transcription factor,	1819	unknown protein
putativ		1820	unknown protein
1786	nitrate reductase, putative	1821	unknown protein
1787	putative protein	1822	copper transport protein - like
1788	putative protein		protein
1789	putative protein	1823	hypothetical protein
1790	putative protein	1824	unknown protein
1791	unknown protein	1825	putative peptide methionine
1792	unknown protein		sulfoxide reductase
1793	tryptophan synthase beta-	1826	putative obtusifoliol 14-alpha
1775	subunit (TSB2)		demethylase
1794	hypothetical protein	1827	glutamate dehydrogenase (EC
1795	putative protein		1.4.1) 1 (pir S71217)
1796	putative DNA-binding	1828	unknown protein
protein	<u>-</u>	1829	xyloglucan endo-1,4-beta-D-
1797	putative 40S ribosomal		glucanase precursor
1///	protein S10	1830	_
1798	putative protein	1831	SNF1 related protein kinase
1799	putative cytochrome P450		(ATSRPK1)
1800	putative protein	1832	putative protein
1801	putative protein	1833	putative chloroplast nucleoid DNA
1802	putative glucosyltransferase	1000	binding protein
1802	No function assigned by	1834	hypothetical protein
TIGR		1835	putative protein
1804	putative protein	1836	putative thiamin biosynthesis
1804	putative protein	1030	protein
	unknown protein	1837	•

113

1838	unknown protein	1869	putative tyrosine aminotransferase
1839	putative RNA helicase	1870	thionin
1840	putative SF21 protein	1871	No function assigned by TIGR
	{Helianthus annuus}	1872	APETALA2 protein
1841	unknown protein	1873	MADS-box protein (AGL3)
1842	NBS/LRR disease	1874	putative monooxygenase
	resistance protein, putative	1875	ZFP3 zinc finger protein
1843	hypothetical protein	1876	cell division protein FtsZ
1844	unknown protein		chloroplast homolog precursor
1845	No function assigned by		(sp Q42545)
TIGR	- ,	1877	calreticulin, putative
1846	glycine-rich protein	1878	phosphoserine aminotransferase
(AtGR	- -	1879	12-oxophytodienoate-10,11-
1847	No function assigned by		reductase
TIGR	•	1880	putative bHLH transcription factor
1848	putative protein	1881	pectin methylesterase (PMEU1),
1849	putative glucosyltransferase		putative
1850	hypothetical protein	1882	DNA-binding protein
1851	hypothetical protein	1883	carnitine racemase like protein
1852	putative protein	1884	putative protein
1853	putative disease resistance	1885	endoxyloglucan transferase
proteir	า		(dbj BAA81669.1)
1854	thaumatin, putative	1886	RMA1 RING zinc finger protein
1855	putative proline-rich protein	1887	ammonium transporter
1856	sterol-C-methyltransferase	1888	apyrase (gb AAF00612.1)
1857	superoxidase dismutase	1889	potassium uptake transporter - like
1858	TINY-like protein		protein
1859	calcium-dependent protein	1890	putative ABC transporter
kinase	e, putative	1891	potassium transporter-like protein
1860	hypothetical protein	1892	integral membrane protein,
1861	putative protein kinase		putative
1862	DNA-directed RNA	1893	putative protein
polym	erase (mitochondrial)	1894	pyruvate decarboxylase-1 (Pdc1)
1863	putaive DNA-binding	1895	putative malate oxidoreductase
protei	\mathbf{n}^{-}	1896	putative histone H2B
1864	late embryogenesis	1897	snoRNA
	abundant M17 protein	1898	symbiosis-related like protein
1865	putative protein	1899	unknown protein
1866	delta-1-pyrroline-5-	1900	unknown protein
	carboxylate synthetase	1901	hypothetical protein
1867	putative 60s ribosomal	1902	putative protein
	protein L10	1903	copper-binding protein-like
1868	cytochrome P450	1904	putative protein
CYP8	86A1	1905	unknown protein
		1906	putative glyoxalase II

1907	No function assigned by	1936	serine/threonine protein kinase,
TIGR		putativ	e
1908	hypothetical protein	1937	potassium transporter - like protein
1909	flavanone 3-hydroxylase	1938	lactate dehydrogenase (LDH1)
(FH3)	•	1939	hypothetical protein
1910	putative laccase	1940	unknown protein
1911	putative protein kinase	1941	putative thaumatin
1912	myb-related protein, 33.3K	1942	putative reticuline oxidase-like
1712	(pir S71284)		protein
1913	unknown protein	1943	uracil phosphoribosyltransferase,
1914	endo-xyloglucan transferase		putative
	- like protein	1944	transcription factor, putative
1915	TMV resistance protein N -	1945	unknown protein
like	•	1946	unknown protein
1916	putative xyloglucan	1947	GATA transcription factor 4
	endotransglycosylase	1948	unknown protein
1917	unknown protein	1949	unknown protein
1918	proline transporter 2	1950	senescence-associated protein -like
1919	resistance protein, putative	1951	putative pollen allergen
1920	actin, putative	1952	unknown protein
1921	putative related to microbial	1953	putative protein
	divalent cation tolerance	1954	glycine-rich protein
	proteins	1955	putative protein
1922	unknown protein	1956	3-methyladenine DNA glycosylase,
1923	putative glycosyl		putative
transfe	•	1957	endoplasmic reticulum-type
1924	unknown protein	250,	calcium-transporting ATPase 4
1925	putative protein	1958	putative pectinesterase
1723	phosphatase 2C	1959	cytochrome P450-like protein
1926	unknown protein	1960	RNA-binding protein (cp33)
1927	serpin, putative	1961	CONSTANS-like 1
1928	cinnamyl-alcohol	1962	putative small heat shock protein
	drogenase CAD1	1963	hypothetical protein
1929	putative protein import	1964	unknown protein
	. -	1965	
recept	unknown protein	1966	cysteine proteinase inhibitor like
1930	•	1700	protein
1931	<u> •</u>	1967	nicotianamine synthase
		1907	(dbj BAA74589.1)
1933	<u> </u>	1968	copper amine oxidase like protein
•	lglycerolglycerol-3-	1906	(fragment2)
	phate 3-	1060	
	phatidyltransferase	1969	putative SCARECROW gene
1934	<u> </u>	1070	regulator
	putative LRR receptor-like	1970	unknown protein
profe	in kinase	1971	unknown protein

115

1972	putative alanine acetyl	2001	auxin response factor 1
	transferase	2002	pathogenesis-related protein 1
1973	unknown protein	precurs	sor, 18.9K
1974	unknown protein	2003	hypothetical protein
1975	unknown protein	2004	unknown protein
1976	putative extensin	2005	zinc finger protein Zat12
1977	putative protein kinase	2006	unknown protein
1978	putative protein kinase	2007	unknown protein
1979	NADPH-dependent	2008	cyclin, putative
	codeinone reductase,	2009	2-dehydro-3-
	putative	deoxy	phosphoheptonate aldolase
1980	peroxidase	2010	glutathione synthetase gsh2
1981	putative cytochrome P450	2011	heat shock protein 17
1982	No function assigned by	2012	putative Na+-dependent inorganic
TIGR			phosphate cotransporter
1983	putative zinc-finger protein	2013	No function assigned by TIGR
	(B-box zinc finger domain)	2014	unknown protein
1984	putative tyrosine	2015	putative protein
	aminotransferase	2016	similar to RING-H2 finger protein
1985	hypothetical protein		RHC1a GB:AAC69854
1986	DNA binding protein		GI:3790583 from [Arabidopsis
1987	putative fatty acid elongase		thaliana]
1988	bZIP transcription factor -	2017	calcium-binding protein - like
	like protein	2018	putative protein
1989	xyloglucan	2019	putative aldehyde dehydrogenase
	fucosyltransferase, putative	2020	auxin-responsive GH3 - like
1990	unknown protein		protein
1991	unknown protein	2021	putative protein
1992	putative protein	2022	Phosphoglycerate dehydrogenase -
1993	myb factor, putative		like protein
1994	Myb-family transcription	2023	unknown protein
	factor, putative	2024	unknown protein
1995	putative fructose	2025	PSI type III chlorophyll a/b-
	bisphosphate aldolase		binding protein, putative
1996	myrosinase-associated	2026	putative protein
	protein, putative	2027	putative protein
1997	cytochrome P450 like	2028	glutaredoxin, putative
protei		2029	hypothetical protein
1998	similar to SOR1 from the	2030	No function assigned by TIGR
	fungus Cercospora	2031	putative protein
	nicotianae	2032	jasmonate inducible protein,
1999	similar to embryo-abundant		putative
-	n GB:L47672 GI:1350530	2033	putative polygalacuronase
	[Picea glauca]		isoenzyme 1 beta subunit
2000	alcohol dehydrogenase	2034	putative small heat shock protein

2035	unknown protein	2068	putative chlorophyll A-B binding
2036	putative disease resistance		protein
	protein	2069	Lhcb3 chlorophyll a/b binding
2037	putative protein		protein (gb AAD28773.1)
2038	ethylene-responsive	2070	luminal binding protein
	element binding factor,	(dbj B	AA13948.1)
	putative	2071	hydroxypyruvate reductase (HPR)
2039	putative protein	2072	epoxide hydrolase (ATsEH)
2040	Pollen-specific protein	2073	putative protein (fragment)
	precursor like	2074	unknown protein
2041	putative protein	2075	hypothetical protein
2042	unknown protein	2076	putative glucosyl transferase
2043	EF-Hand containing protein	2077	putative glucosyl transferase
	-like	2078	putative 3-methylcrotonyl-CoA
2044	unknown protein	carbox	rylase
2045	puative calcium-	2079	putative peroxidase
	transporting ATPase	2080	acyl-CoA oxidase
2046	antifungal protein-like	(gb AA	AC13497.1)
	(PDF1.2)	2081	alternative oxidase 1a precursor
2047	pathogenesis-related PR-1-	2082	putative transcription factor
	like protein		(MYB4)
2048	similar to Mlo proteins	2083	serine acetyltransferase
	from H. vulgare	2084	ATP-sulfurylase
2049	putative steroid	2085	calreticulin (crt1)
	ransferase	2086	putative prohibitin 2
2050	trehalase - like protein	2087	putative monodehydroascorbate
2051	thioredoxin fl		reductase
2052	unknown protein	2088	branched-chain alpha-keto acid
2053	alanine-glyoxylate		decarboxylase E1 beta subunit
	aminotransferase	2089	cytokinin oxidase - like protein
2054	integral membrane protein,	2090	putative receptor-like protein
	putative		kinase
2055	hypothetical protein	2091	unknown protein
2056	unknown protein	2092	hypothetical protein
2057	hypothetical protein	2093	No function assigned by TIGR
2058	unknown protein	2094	putative APG protein
2059	unknown protein	2095	glutathione S-transferase, putative
2060	unknown protein	2096	phytochrome-associated protein 1
2061	drought-induced-19-like 1		(PAP1)
2062	unknown protein	2097	amidophosphoribosyltransferase
2063	putative protein	2098	nonphototropic hypocotyl 1
2064	putative protein	2099	3-keto-acyl-CoA thiolase 2
2065	AIG2-like protein	± .	(gb AAC17877.1)
2066	Lhca2 protein	2100	pEARLI 1
2067	phytocyanin	2101	glutathione reductase, cytosolic

117

2102	putative protein	2128	putative protein disulfide-
2103	putative protein		isomerase
2104	putative aldehyde oxidase	2129	unknown protein
2105	probable photosystem I	2130	beta-1,3-glucanase class I
	chain XI precursor		precursor
2106	photosystem II polypeptide,	2131	homeobox-leucine zipper protein
	putative		HAT5 (HD-ZIP protein 5) (HD-
2107	photosystem II reaction		ZIP protein ATHB-1)
	center 6.1KD protein	2132	putative cyclic nucleotide-
2108	33 kDa polypeptide of		regulated ion channel protein
	oxygen-evolving complex	2133	P II nitrogen sensing protein GLB I
	(OEC) in photosystem II	2134	H-protein promoter binding factor-
	(emb CAA75629.1)		1 (gb AAC24592.1)
2109	60S ribosomal protein	2135	GAST1-like protein
L11B	1	2136	cytochrome P450 GA3
2110	extA (emb CAA47807.1)	2137	putative protein
2111	zinc finger protein OBP4 -	2138	Myb-related transcription factor-
like	3 1	like pr	
2112	sterol delta7 reductase	2139	putative phloem-specific lectin
2113	putative RAS-related	2140	protein kinase - like protein
	protein, RAB11C	2141	unknown protein
2114	glucosyltransferase like	2142	SCARECROW transcriptional
proteir		regula	tor-like
2115	zinc finger protein (PMZ),	2143	unknown protein
	putative	2144	unknown protein
2116	6,7-dimethyl-8-	2145	putative protein
	ribityllumazine synthase	2146	calnexin homolog
	precursor	2147	PP1/PP2A phosphatases
2117	putative protein	pleiotr	copic regulator PRL2
2118	osmotin precursor	2148	xyloglucan endotransglycosylase,
2119	No function assigned by	putativ	ve
TIGR	- ·	2149	putative calmodulin
2120	ferredoxin precusor isolog	2150	
2121	GH3 like protein	2151	snoRNA
2122	non-specific lipid transfer	2152	photosystem I subunit V precursor,
	protein		putative
2123	homeodomain transcription	2153	putative potassium transporter
	factor (HAT9)	2154	Homeodomain - like protein
2124	putative cytochrome P450	2155	putative protein
	monooxygenase	2156	unknown protein
2125	putative protein kinase	2157	CALMODULIN-RELATED
2126	putative protein		PROTEIN 2, TOUCH-INDUCED
2127	glyceraldehyde-3-		(TCH2)
	phosphate dehydrogenase	2158	putative protein phosphatase 2C

2159	monosaccharide transport	2187	defender against cell death protein
	protein, STP4	2188	AP2 domain containing protein,
2160	hypothetical protein		putative
2161	unknown protein	2189	actin depolymerizing factor - like
2162	hypothetical protein		protein
2163	putative protein kinase	2190	putative calcium-dependent protein
2164	putative serine/threonine		kinase (U90439)
	protein kinase	2191	phosphoribosylanthranilate
2165	jasmonate inducible		transferase, putative
	protein, putative	2192	oligopeptide transporter, putative
2166	similar to several small	2193	calmodulin-like protein
	proteins (~100 aa) that are	2194	putative protease inhibitor
	induced by heat, auxin,	2195	MAP kinase
	ethylene and wounding	2196	DNA binding protein MybSt1,
	such as Phaseolus aureus		putative
	indole-3-acetic acid	2197	putative protein
	induced protein ARG	2198	putative protein
	(SW:32292)	2199	unknown protein
2167	unknown protein	2200	unknown protein
2168	MYB-like protein	2201	unknown protein
2169	putative protein kinase	2202	putative protein
2170	unknown protein	2203	unknown protein
2171	CLC-d chloride channel	2204	unknown protein
protei	n	2205	hypothetical protein
2172	cytochrome P450-like	2206	uncharacterized protein
protein	n	2207	putative protein
2173	putative glutathione S-	2208	hypothetical protein
	transferase	2209	peroxidase (emb CAA66967.1)
2174	putative mandelonitrile	2210	putative flavonol 3-O-
lyase		glucos	syltransferase
2175	hypothetical protein	2211	putative flavonol 3-O-
2176	putative trypsin inhibitor	glucos	syltransferase
2177	male sterility 2-like protein	2212	putative protein
	(emb CAA68191.1)	2213	glycerol-3-phosphate
2178	unknown protein	acyltra	ansferase
2179	unknown protein	2214	putative beta-1,3-glucanase
2180	putative protein	2215	putative ethylene response element
2181	putative peroxidase		ng protein (EREBP)
2182	putative thromboxane-A	2216	putative CONSTANS-like B-box
	synthase		inger protein
2183	putative cytochrome P450	2217	putative protein
2184	peroxidase ATP21a	2218	•
2185	unknown protein	2219	· · · · · · · · · · · · · · · · · · ·
2186	putative glutathione S-		hatase (AtTPPA)
	transferase	2220	nutative protein

2221	putative protein	2251	lysine and histidine specific
2222	unknown protein		transporter, putative
2223	unknown prptein	2252	putative protein
2224	unknown protein	2253	putative protein
2225	hypothetical protein	2254	putative sugar transporter protein
2226	putative metal-binding	2255	12S cruciferin seed storage protein
protein		2256	putative auxin-induced protein,
2227	putative		IAA17/AXR3-1
	phosphoribosylglycinamide	2257	putative cyclin D
	synthetase	2258	farnesyl diphosphate synthase
2228	unknown protein		precursor (gb AAB49290.1)
2229	putative protein	2259	putative potassium transport
2230	unknown protein		protein (TRH1)
2231	unknown protein	2260	putative NPK1-related MAP kinase
2232	putative beta-galactosidase	2261	putative protein
2233	putative protein kinase	2262	putative ABC transporter
2234	putative protein	2263	putative DNA-directed RNA
2235	putative protein		polymerase subunit
	phosphatase 2C	2264	putative small nuclear
2236	putative growth regulator		ribonucleoprotein E
	protein	2265	unknown protein
2237	putative ABC transporter	2266	reticuline oxidase - like protein
2238	chloride channel	2267	putative 1-aminocyclopropane-1-
	(emb CAA70310.1)		carboxylate oxidase
2239	adrenodoxin - like protein	2268	similar to Mlo proteins from H.
2240	NAM (no apical meristem)-		vulgare
	like protein	2269	long-chain-fatty-acidCoA ligase-
2241	putative transcription factor		like protein
	MYB41	2270	putative protein
2242	Myb DNA binding protein -	2271	chromatin remodelling complex
like		•	ATPase chain ISWI -like protein
2243	AtMYB84	2272	hypothetical protein
2244	photosystem II type I	2273	latex-abundant protein, putative
	chlorophyll a/b binding	2274	N-acetylornithine deacetylase-like
	protein		protein, fragment
2245	putative aspartic proteinase	2275	putative DNA-binding protein
2246	jasmonate inducible	2276	putative anthranilate N-
	protein, putative		hydroxycinnamoyl/benzoyltransfer
2247	putative protein		ase
2248	No function assigned by	2277	putative DNA binding protein
TIGR		2278	cytochrome P450 - like protein
2249	putative phosphatidylserine	2279	putative DNA-binding protein
	synthase	2280	putative peptide transporter
2250	putative nicotianamine	2281	putative reticuline oxidase-like
	synthase	protei	n

2282	thioredoxin, putative	2313	putative protein kinase
2283	nodulin-like protein	2314	indoleacetic acid (IAA)-inducible
2284	UDP-galactose transporter -		gene (IAA7)
like pr	otein	2315	ATP-dependent Clp protease
2285	putative fibrillin		regulatory subunit CLPX
2286	unknown protein	2316	DNA-binding protein RAV1
2287	unknown protein	2317	putative protein
2288	unknown protein	2318	hypothetical protein
2289	hypothetical protein	2319	unknown protein
2290	glyceraldehyde 3-phosphate	2320	unknown protein
	dehydrogenase A subunit	2321	putative protein
	(GapA)	2322	putative thioredoxin reductase
2291	predicted protein of	2323	unknown protein
	unknown function	2324	putative lectin
2292	putative protein	2325	No function assigned by TIGR
2293	putative protein	2326	beta-fructosidase
2294	myb-like protein	2327	chlorophyll a/b-binding protein
2295	hypothetical protein		CP29
2296	putative U5 small nuclear	2328	photosystem I subunit PSI-E - like
	ribonucleoprotein, an RNA		protein
	helicase	2329	peroxidase ATP8a
2297	unknown protein	2330	putative fructose bisphosphate
2298	cinnamyl alcohol		aldolase
	dehydrogenase - like	2331	zinc finger protein ATZF1,
	protein		putative
2299	hypothetical protein similar	2332	DegP protease precursor
	to extensin-like protein	2333	transcription factor-like protein
2300	unknown protein	2334	calcium-dependent protein kinase
2301	putative chlorophyll a/b	2335	hypothetical protein
	binding protein	2336	putative protein
2302	probable plasma membrane	2337	glucose-1-phosphate
	intrinsic protein 1c		adenylyltransferase (APL3)
2303	hexokinase (ATHXK2)	2338	No function assigned by TIGR
2304	calcium-dependent protein	2339	putative Eukaryotic initiation factor
	kinase		4A
2305	5'-adenylylphosphosulfate	2340	No function assigned by TIGR
	reductase, putative	2341	unknown protein
2306	Erd1 protein precursor	2342	beta tubulin 1, putative
	(sp P42762)	2343	one helix protein (OHP)
2307	putative protein	2344	No function assigned by TIGR
2308	putative protein	2345	zinc finger protein 5, ZFP5
2309	unknown protein	2346	putative MYB family transcription
2310	BCS1 protein-like protein		factor
2311	putative protein	2347	putative amino acid transporter
2312	putative protein		protein

2348	putative potassium	2374	putative PHD-type zinc finger
transpo	rter		protein
2349	protein kinase (AFC2)	2375	nuclear RNA binding protein A-
2350	putative protein		like protein
2351	No function assigned by	2376	unknown protein
TIGR		2377	unknown protein
2352	putative ubiquitin-	2378	unknown protein
conjuga	ating enzyme E2	2379	putative amino-cyclopropane-
	unknown protein		carboxylic acid oxidase (ACC
2354	cytochrome P450		oxidase)
monoo:	xygenase (CYP71B3)	2380	hypothetical protein
	putative myrosinase-	2381	indole-3-acetate beta-
	g protein		glucosyltransferase like protein
-	putative vacuolar sorting	2382	predicted protein
recepto	•	2383	unknown protein
	uridine diphosphate glucose	2384	No function assigned by TIGR
epimer		2385	putative photosystem I reaction
2358	shaggy related protein		center subunit IV
	, ASK-GAMMA	2386	putative homeodomain
2359	ankyrin repeat protein		transcription factor
EMB5	·	2387	putative purple acid phosphatase
2360	putative beta-alanine-		precursor
	pyruvate aminotransferase	2388	No function assigned by TIGR
2361	putative alcohol	2389	nitrate reductase 1 (NR1)
	rogenase	2390	putative casein kinase II beta
2362	putative receptor-like		subunit
	protein kinase	2391	pEARLI 1-like protein
2363	unknown protein	2392	putative protein
2364	putative methylmalonate	2393	No function assigned by TIGR
	semi-aldehyde	2394	unknown protein
	dehydrogenase	2395	putative cell wall-plasma
2365	hypothetical protein		membrane disconnecting CLCT
2366	unknown protein		protein (AIR1A)
2367	peroxidase ATP13a	2396	unknown protein
2368	putative glutathione	2397	scarecrow-like 11 - like
peroxi		2398	putative anthocyanidin synthase
2369	squamosa promoter binding	2399	putative AP2 domain transcription
	protein-like 7		factor
2370	photosystem II core	2400	caffeoyl-CoA O-methyltransferase
	complex protein, putative		- like protein
2371	snoRNA	2401	unknown protein
2372	photosystem I subunit X	2402	•
	precursor	2403	
2373	MYB transcription factor	2404	
	(Atmyb2)	2405	putative glutathione S-transferase

2406	hypothetical protein	2437	putative protein
2407	similar to gibberellin-	2438	unknown protein
	regulated proteins	2439	unknown protein
2408	unknown protein	2440	putative protein
2409	putative sensory	2441	No function assigned by TIGR
	transduction histidine	2442	MADS-box protein AGL14
	kinase	2443	No function assigned by TIGR
2410	similar to late	2444	peptidylprolyl isomerase
	embryogenesis abundant	2445	putative s-adenosylmethionine
	proteins		synthetase
2411	unknown protein	2446	peroxidase
2412	putative protein	2447	ferrochelatase-I
2413	putative ATP-dependent	2448	putative eukaryotic initiation factor
	RNA helicase		4, eIF4
2414	putative protein	2449	drought-inducible cysteine
2415	putative sucrose synthetase		proteinase RD21A precursor -like
2416	beta-fructofuranosidase 1		protein
2417	putative indole-3-acetate	2450	unknown protein
	lucosyltransferase	2451	unknown protein
2418	hypothetical protein	2452	No function assigned by TIGR
	DNA-directed RNA	2453	No function assigned by TIGR
	nerase II, third largest subunit	2454	salt-inducible like protein
2420	putative transcription factor	2455	glucose-6-phosphate 1-
2421	homeobox-leucine zipper		dehydrogenase
	n ATHB-5 (HD-zip protein	2456	3-hydroxy-3-methylglutaryl CoA
	3-5) (sp P46667)		reductase (AA 1-592)
	putative ftsH chloroplast	2457	hypothetical protein
protea	<u>-</u>	2458	putative protein
2423	replication protein A1 - like	2459	putative putative 60S ribosomal
2424	hypothetical protein		protein L17
2425	unknown protein	2460	putative inorganic pyrophosphatase
2426	unknown protein	2461	putative gamma-
2427	putative methionine		glutamyltransferase
	aminopeptidase	2462	heat shock transcription factor -
2428			like protein
2429	fatty acid elongase - like	2463	mitochondrial chaperonin hsp60
	protein (cer2-like)	2464	unknown protein
2430	unknown protein	2465	putative zinc finger protein
2431	putative disease resistance		identical to T10M13.22
	response protein	2466	putative uridylyl transferase
2432	putative protein	2467	nodulin-like protein
2433	unknown protein	2468	putative B-box zinc finger protein
2434	<u>-</u>	2469	No function assigned by TIGR
2435	<u> - </u>	2470	putative metalloproteinase
2436	<u> </u>		-

123

2471	putative cellular apoptosis	2504	unknown protein
	susceptibility protein	2505	unknown protein
2472	hypothetical protein	2506	60S ribosomal protein L10A
2473	hypothetical protein	2507	putative protein
2474	scarecrow-like 13 (SCL13)	2508	receptor protein kinase (IRK1),
2475	putative nucleoside	•	putative
	triphosphatase	2509	putative nematode-resistance
2476	unknown protein		protein
2477	No function assigned by	2510	tubulin alpha-5 chain-like protein
TIGR		2511	putative DNA-binding protein
2478	hypothetical protein	2512	unknown protein
2479	putative phospholipase	2513	putative RGA1, giberellin repsonse
2480	putative snRNP protein		modulation protein
2481	putative protein	2514	non phototropic hypocotyl 1-like
2482	putative lipase	2515	RING-H2 finger protein RHA1b
2483	putative nonsense-mediated	2516	putative myb-protein
	mRNA decay protein	2517	hydroperoxide lyase (HPOL) like
2484	No function assigned by		protein
TIGR		2518	serine/threonine-protein kinase,
2485	protochlorophyllide		PK7
	reductase precursor	2519	putative vacuolar proton-ATPase
2486	No function assigned by		subunit
TIGR	•	2520	putative polygalacturonase
2487	trehalose-6-phosphate	2521	putative ribosomal protein L8
	synthase, putative	2522	putative adenylate kinase
2488	unknown protein	2523	germin-like protein (GLP10)
2489	germin-like protein	2524	putative chlorophyll a/b binding
2490	plastid protein		protein
2491	putative protein	2525	chloroplast single subunit DNA-
2492	hypothetical protein		dependent RNA polymerase
2493	unknown protein	2526	putative protein
2494	unknown protein	2527	hypothetical protein
2495	histone deacetylase-like	2528	hypothetical protein
protei		2529	b-keto acyl reductase, putative
2496	unknown protein	2530	cellulose synthase catalytic subunit
2497	unknown protein	2531	putative 1-aminocyclopropane-1-
2498			carboxylate oxidase
2499		2532	S-linalool synthase, putative
2500		2533	phosphoribosyl-ATP
TIGR		2521	pyrophosphohydrolase (At-IE)
2501	putative zinc transporter	2534	disease resistance RPP5 like
	- like	0505	protein (fragment)
2502		2535	
2503	putative ribosomal-protein S6 kinase (ATPK19)	2536	beta-galactosidase like protein

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124

2537	putative translation	2566	unknown protein
	initiation factor eIF-2,	2567	unknown protein
	gamma subunit	2568	unknown protein
2538	ankyrin like protein	2569	serine/threonine kinase - like
2539	histone H2A- like protein	protein	1
2540	putative protein	2570	peroxidase (emb CAA66960.1)
2541	salt-tolerance zinc finger	2571	putative protein
	protein	2572	hypothetical protein
2542	unknown protein	2573	glycine-rich protein 2 (GRP2)
2543	putative protein	2574	unknown protein
2544	fructose-bisphosphate	2575	berberine bridge enzyme-like
aldolas	se .	proteir	
2545	peroxidase	2576	unknown protein
(emb C	CAA66964.1)	2577	putative WD-repeat protein
2546	patatin-like protein	2578	serine/threonine kinase - like
2547	salt-inducible protein		protein
homol	=	2579	serine /threonine kinase - like
2548	hypothetical protein		protein
2549	xyloglucan endo-	2580	Cu2+-transporting ATPase-like
	transglycosylase-like		protein
	protein	2581	translation initiation factor eIF4E
2550	trihelix DNA-binding	2582	O-methyltransferase - like protein
	protein (GT2)	2583	translation initiation factor eIF3 -
2551	ubiquitin-conjugating		like protein
	enzyme 16, putative	2584	No function assigned by TIGR
2552	homeobox protein	2585	unknown protein
2553	envelope Ca2+-ATPase	2586	hypothetical protein
2554	snap25a	2587	unknown protein
2555	putative annexin	2588	unknown protein
2556	putative protein	2589	glycine-rich protein like
2557	homeodomain transcription	2590	putative disease resistance protein
	factor (ATHB-14)	2591	putative Na+/Ca2+ antiporter
2558	heat shock protein, putative	2592	putative hydroxymethylglutaryl-
2559	peroxidase ATP23a		CoA lyase
2560	p68 RNA helicase, putative	2593	putative
2561	potassium transporter,		phosphoribosylaminoimidazole
putati	ve		carboxylase
2562	putative eukaryotic	2594	SAR DNA-binding protein - like
transla	ation initiation factor 2 alpha	2595	response regulator, putative
subun	it, eIF2	2596	fibrillin precursor-like protein
2563	hypothetical protein	2597	beta-ketoacyl-CoA synthase
2564	carnitine racemase like		(FIDDLEHEAD)
protei	n	2598	lectin like protein
2565	No function assigned by	2599	No function assigned by TIGR
TIGR			

2600	acidic endochitinase	2629	unknown protein
	(dbj BAA21861.1)	2630	unknown protein
2601	unknown protein	2631	unknown protein
2602	hypothetical protein	2632	nucleosome assembly protein I-like
2603	predicted OR23 protein of	protein	
	unknown function	2633	membrane channel like protein
2604	putative protein	2634	anthocyanin2, putative
2605	hypothetical protein	2635	TWIN SISTER OF FT (TSF)
2606	glycerol-3-phosphate	2636	putative myb-related transcription
	dehydrogenase	factor	1
2607	hypothetical protein	2637	hypothetical protein
2608	tat-binding protein, putative	2638	putative RING zinc finger protein
2609	putative protein	2639	amino acid transport protein AAT1
2610	putative trehalose-6-	2640	putative protein
2010	phosphate phosphatase	2641	putative protein
2611	hypothetical protein	2642	xanthine dehydrogenase
2612	putative flavonol 3-O-	2643	xanthine dehydrogenase - like
2012	glucosyltransferase	proteir	
2613	60S ribosomal protein L30	2644	receptor protein kinase (IRK1),
2614	putative auxin-induced		putative
proteir	•	2645	dehydrin-like protein
2615	putative nonspecific lipid-	2646	unknown protein
2013	transfer protein precursor	2647	aldehyde dehydrogenase homolog,
2616	AtRer1A		putative
2617	putative aquaporin	2648	Ran binding protein (AtRanBP1b)
2017	(tonoplast intrinsic protein	2649	putative squamosa-promoter
	gamma)		binding protein
2618	hypothetical protein	2650	putative protein
2619	putative alanine acetyl	2651	kinesin like protein
2017	transferase	2652	putative cellulose synthase
2620	putative NADP-dependent	2653	calmodulin (cam2)
2020	glyceraldehyde-3-	2654	fibrillarin - like protein
	phosphate dehydrogenase	2655	putative transmembrane protein
2621	putative DNA binding		G5p
protei		2656	putative peroxidase
2622	putative cystathionine	2657	putative SNF1-related protein
	gamma-synthase		kinase
2623	unknown protein	2658	glutathione S-transferase, putative
2624	malate oxidoreductase	2659	unknown protein
	(malic enzyme)	2660	hypothetical protein
2625	unknown protein	2661	putative protein
2626	cyclic nucleotide-gated	2662	phosphatidylinositol-4-phosphate
_3_3	cation channel		5-kinase isolog
2627	_	2663	putative tyrosine decarboxylase
2628		2664	unknown protein

2665	SGP1 monomeric G-protein	2691	putative pyrophosphate-dependent
2000	(emb CAB54517.1)		phosphofructokinase alpha subunit
2666	putative serine	2692	putative flavonol
0665	carboxypeptidase II		glucosyltransferase
2667	putative L5 ribosomal	2693	peroxidase ATP20a
proteir			(emb CAA67338.1)
2668	putative glucosyltransferase	2694	TOPP8 serine/threonine protein
2669	flavonoid 3,5-hydroxylase		phosphatase type one
	like protein	2695	auxin regulated protein IAA18,
2670	putative protein		putative
2671	putative protein	2696	putative WRKY-type DNA binding
2672	putative Fe(II)/ascorbate		protein
	oxidase	2697	putative glucan synthase
2673	putative anthocyanin 5-	2698	squalene monooxygenase
	aromatic acyltransferase	2699	putative proline-rich protein
2674	casein kinase I	2700	G2484-1 protein
2675	putative 2,3-	2701	heat shock protein 70 like protein
	bisphosphoglycerate-	2702	unknown protein
	independent	2703	unknown protein
	phosphoglycerate mutase	2.00	madio III protoin
2676	putative glutathione S-		
	transferase TSI-1		
2677	ATP-dependent RNA		
helicas	-		
2678	putative cytochrome P450		
2679	putative WD-40 repeat		:
proteir		•	
2680	No function assigned by		
TIGR	Tio function assigned by		
2681	No function assigned by		
TIGR	· · · · · · · · · · · · · · · · · · ·		
2682	putative protein		
2683	putative extensin		
2684	nodulin-26 - like protein		
2685	RNA helicase		
2005	(emb CAA09212.1)		
2686	predicted protein of		
2000	unknown function		
2687	putative berberine bridge		
2007	enzyme		
2688	thioredoxin, putative		
2689	putative serine		
2007	carboxypeptidase I		
2690	cytochrome P450-like		
	•		
proteir	u		

127 **TABLE 2**

ABIOTIC STRESS RESPONSIVE GENE REGULATORY SEQUENCES

	EGULATORY	SEQ	REGULATORY	SEQ F	EGULATORY
ID NO:	REGION	ID NO:	REGION	ID NO:	REGION
1	2704	51	2753	101	2802
2	2705	.52	2754	102	2803
2 3	2706	53	2755	103	2804
4	2707	54	2756	104	2805
5	2708	55	2757	105	2806
6	2709	56	2758	106	2807
7	2710	57	2759	107	2808
8	2711	58	2760	107	
9 .	2712	59	2761	108	2809
10	2713	60	2762	110	2810 2811
11	2714	61	2763	111	
12	2715	62	2764	112	2812
13	2716	63	2765	113	2813
14	2717	64	2766		2814
15	2718	65	2767	114	2815
16	2719	66	2768	115	2816
17	2720	67		116	2817
18	2721	68	2769	117	2818
19			2770	118	2819
20	2722	69 70	NONE	119	2820
	2723	70 71	2771	120	2821
21	2724	71	2772	121	2822
22	2725	72 72	2773	122	2823
23	2726	73	2774	123	2824
24	2727	74	2775	124	2825
25	2728	75	2776	125	2826
26	2729	76	2777	126	2827
27	2730	77	2778	127	2828
28	2731	78	2779	128	2829
29	2732	79	2780	129	2830
30	2733	80	2781	130	2831
31	2734	81	2782	131	2832
32	2735	82	2783	132	2833
33	2736	83	2784	133	2834
34	2737	84	2785	134	2835
35	2738	85	2786	135	2836
36	2739	86	2787	136	2837
37	2740	87	2788	137	2838
38	2741	88	2789	138	2839
39	2742	89	2790	139	2840
40	2743	90	2791	140	2841
41	2744	91	2792	141	2842
42	2745	92	2793	142	2843
43	NONE	93	2794	143	2844
44	2746	94	2795	144	NONE
45	2747	95	2796	145	2845
46	2748	96	2797	146	2846
47	2749	97	2798	147	2847
48	2750	98	2799	148	2848
49	2751	99	2800	149	2849
50	2752	100	2801	150	2850
20			2301	130	2030

128

151	2851	205	2905	259	2959
152	2852	206	2906	260	2960
153	2853	207	2907	261	2961
154	2854	208	2908	262	2962
155	2855	209	2909	263	2963
156	2856	210	2910	264	2964
157	2857	211	2911	265	2965
158	2858	212	2912	266	2966
159	2859	213	2913	267	2967
160	2860	214	2914	268	2968
161	2861	215	2915	269	2969
162	2862	216	2916	270	2970
163	2863	217	2917	271	2971
164	2864	218	2918	272	2972
165	2865	219	2919	273	2973
166	2866	220	2920	274	2974
167	2867	221	2921	275	2975
168	2868	222	2922	276	2976
169	2869	223	2923	277	2977 2977
170	2870	224	2924	278	2978
171	2871	225	2925	279	2979
172	2872	226	2926	280	2980
172	2873	227	2927	281	2981
174	2874	228	2928	282	2982
175	2875	229	2929	283	2983
176	2876	230	2930	284	2984
170	2877	231	2931	285	2985
177	2878	232	2932	286	2986
178	2879	232	2933	287	2980 2987
180	2880	234	2934	288	2988
	2881	235	2935	289	2989
181	2882	236	2936	290	2989 2990
182		237	2937	290 291	
183	2883 2884	237	2938	291 292	2991
184		239	2939	292	2992
185	2885	240		293 294	2993
186	2886		2940		2994
187	2887	241	2941	295	2995
188	2888	242	2942	296	2996
189	2889	243	2943	297	2997
190	2890	244	2944	298	2998
191	2891	245	2945	299	2999
192	2892	246	2946	300	3000
193	2893	247	2947	301	3001
194	2894	248	2948	302	3002
195	2895	249	2949	303	3003
196	2896	250	2950	304	NONE
197	2897	251	2951	305	3004
198	2898	252	2952	306	3005
199	2899	253	2953	307	3006
200	2900	254	2954	308	3007
201	2901	255	2955	309	3008
202	2902	256	2956	310	3009
203	2903	257	2957	311	3010
204	2904	258	2958	312	3011

129

313	3012	367	3066	421	3120
314	3013	368	3067	422	3121
315	3014	369	3068	423	3122
316	3015	370	3069	424	3123
317	3016	371	3070	425	3124
318	3017	372	3071	426	3125
319	3018	373	3072	427	3126
320	3019	374	3073	428	3127
321	3020	375	3074	429	3128
322	3021	376	3075	430	3129
323	3022	377	3076	431	3130
324	3023	378	3077	432	3131
325	3024	379	3078	433	3132
326	3025	380	3079	434	3133
327	3026	381	3080	435	3134
328	3027	382	3081	436	3135
329	3028	383	3082	437	3136
330	3029	384	3083	438	3137
331	3030	385	3084	439	3138
332	3031	386	3085	440	3139
333	3032	387	3086	441	3140
334	3033	388	3087	442	3141
335	3034	389	3088	443	3142
336	3035	390	3089	444	3143
337	3036	391	3090.	445	3144
338	3037	392	3091	446	3145
339	3038	393	3092	447	3146
340	3039	394	3093	448	3147
341	3040	395	3094	449	3148
342	3041	396	3095	450	3149
343	3042	397	3096	451	3150
344	3043	398	3097	452 453	3151
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346	3045	400	3099	454 455	3153 3154
347	3046	401	3100	456	3155
348	3047	402	3101	457	3156
349	3048	403	3102	458	3157
350	3049	404	3103	459	3158
351	3050	405 406	3104 3105	460	3159
352	3051	406 407	3106	461	3160
353	3052	407 408	3107	462	3161
354	3053	409	3107	463	3162
355	3054 2055	410	3109	464	3163
356	3055 3056	411	3110	465	3164
357	3057	412	3111	466	3165
358 350	3058	413	3112	467	3166
359 360	3059	414	3113	468	3167
361	3060	415	3114	469	3168
362	3061	416	3115	470	3169
362 363	3062	417	3116	471	3170
364	3063	418	3117	472	3171
365	3064	419	3118	473	3172
366	3065	420	3119	474	3173
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WO 2002/016655

130

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476	3175	530	3229	584	3283
477	3176	531	3230	585	3284
478	3177	532	3231	586	3285
479	3178	533	3232	587	3286
480	3179	534	3233	588	3287
481	3180	535	3234	589	3288
482	3181	536	3235	590	3289
483	3182	537	3236	591	3290
484	3183	538	3237	592	3291
485	3184	539	3238	593	3292
486	3185	540	3239	594	3293
487	3186	541	3240	595	3294
488	3187	542	3241	596	3295
489	3188	543	3242	597	3296
490	3189	544	3243	598	3297
491	3190	545	3244	599	3298
492	3191	546	3245	600	3299
493	3192	547	3246	601	3300
494	3193	548	3247	602	3301
495	3194	549	3248	603	3302
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497	3196	551	3250	605	3304
498	3197	552	3251	606	3305
499	3198	553	3252	607	3306
500	3199	554	3253	608	3307
501	3200	555	3254	609	3308
502	3201	556	3255	610	. 3309
503	3202	557	3256	611	3310
504	3203	558	3257	612	3311
505	3204	559	3258	613	3312
506	3205	560	3259	614	3313
507	3206	561	3260	615	3314
508	3207	562	3261	616	3315
509	3208	563	3262	617	3316
510	3209	564	3263	618	3317
511	3210	565	3264	619	3318
512	3211	566	3265	620	3319
513	3212	567	3266	621	3320
514	3213	568	3267	622	3321
515	3214	569	3268	623	3322
516	3215	570	3269	624	3323
517	3216	571	3270	625	3324
518	3217	572	3271	626	3325
519	3218	573	3272	627	3326
520	3219	574	3273	628	3327
521	3220	575	3274	629	3328
522	3221	576	3275	630	3329
523	3222	577 572	3276	631	3330
524	3223	578 570	3277	632	3331
525	3224	579 580	3278	633	3332
526	3225	580	3279	634	3333
527	3226	581	3280	635	3334
528	3227	582	3281	636	3335

131

637	3336	691	3390	745	3444
638	3337	692	3391	746	3445
639	3338	693	3392	747	3446
640	3339	694	3393	748	3447
641	3340	695	3394	749	3448
642	3341	696	3395	750	3449
643	3342	697	3396	751	3450
644	3343	698	3397	752	3451
645	3344	699	3398	753	3452
646	3345	700	3399	754	3453
647	3346	701	3400	755	3454
648	3347	702	3401	756	3455
649	3348	703	3402	757	3456
650	3349	704	3403	758	3457
651	3350	705	3404	759	3458
652	3351	706	3405	760	3459
653	3352	707	3406	761	3460
654	3353	708	3407	762	3461
655	3354	709	3408	763	3462
656	3355	710	3409	764	3463
657	3356	711	3410	765	3464
658	3357	712	3411	766	3465
659	3358	713	3412	767	3466
660	3359	714	3413	768	3467
661	3360	715	3414	769	3468
662	3361	716	3415	770	3469
663	3362	717	3416	771	3470
664	3363	718	3417	772	3471
665	3364	719	3418	773	3472
666	3365	720	3419	774	3473
667	3366	721	3420	775	3474
668	3367	722	3421	776	3475
669	3368	723	3422	777	3476
670	3369	724	3423	778	3477
671	3370	725	3424	779	3478
672	3371	726	3425	780	3479
673	3372	727	3426	781	3480
674	3373	728	3427	782	3481
675	3374	729	3428	783	3482
676	3375	730	3429	784	3483
677	3376	731	3430	785	3484
678	3377	732	3431	786	3485
679	3378	733	3432	787	3486
680	3379	734	3433	788	3487
681	3380	735	3434	789	3488
682	3381	736	3435	790	3489
683	3382	737	3436	791	3490
684	. 3383	738	3437	792	3491
685	3384	739	3438	793	3492
686	3385	740	3439	794	3493
687	3386	741	3440	795	3494
688	3387	742	3441	796	3495
689	3388	743	3442	797	3496
690	3389	744	3443	798	3497
070	3307	/	3		- •

WO 2002/016655

132

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801	3500	855	3554	909	3605
802	3501	856	3555	910	3606
803	3502	857	3556	911	3607
.804	3503	858	3557	912	3608
805	3504	859	3558	913	3609
806	3505	860	3559	914	3610
807 ·	3506	861	3560	915	3611
808	3507	862	3561	916	3612
809	3508	863	3562	917	3613
810	3509	864	3563	918	3614
811	3510	865	3564	919	3615
812	3511	866	3565	920	3616
813	3512	867	3566	921	3617
814	3513	868	3567	922	3618
815	3514	869	3568	923	3619
816	3515	870	3569	924	3620
817	3516	871	3570	925	3621
818	3517	872	3571	926	3622
819	3518	873	3572	927	3623
820	3519	874	3573	928	3624
821	3520	875	3574	929	3625
822	3521	876	3575	930	3626
823	3522	877	3576	931	3627
824	3523	878	3577	932	3628
825	3524	879	3578	933	3629
826	3525	880	3579	934	3630
827	3526	881	3580	935	NONE
828	3527	882	3581	936	3631
829	3528	883	3582	937	3632
830	3529	884	3583	938	3633
831	3530	885	3584	939	3634
832	3531	886	3585	940	3635
833	3532	887	NONE	941	3636
834	3533	888	3586	942	3637
835	3534	· 889	3587	943	3638
836	3535	890	3588	944	3639
837	3536	891	3589	945	3640
838	3537	892	3590	946	3641
839	3538	893	3591	947	3642
840	3539	894	NONE	948	3643
841	3540	895	NONE	949	3644
842	3541	896	3592	950	3645
843	3542	897	3593	951	3646
844	3543	898	3594	952	3647
845	3544	899	3595	953	3648
846	3545	900	3596	954	3649
847	3546	901	3597	955	3650
848	3547	902	3598	956	3651
849	3548	903	3599	957	3652
850	3549	904	3600	958	3653
851	3550	905	3601	959	3654
852	3551	906	3602	960	3655
		•			

133

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961	3656	1015	3710	1069	3764
962	3657	1016	3711	1070	3765
963	3658	1017	3712	1071	3766
964	3659	1018	3713	1072	3767
965	3660	1019	3714	1073	3768
966	3661	1020	3715	1074	3769
967	3662	1021	3716	1075	3770
968	3663	1022	3717	1076	3771
969	3664	1023	3718	1077	3772
970	3665	1024	3719	1078	3773
971	3666	1025	3720	1079	3774
972	3667	1026	3721	1080	3775
973	3668	1027	3722	1081	3776
974	3669	1028	3723	1082	3777
975	3670	1029	3724	1083	3778
976	3671	1030	3725	1084	3779
977	3672	1031	3726	1085	3780
978	3673	1032	3727	1086	3781
979	3674	1033	3728	1087	NONE
980	3675	1034	3729	1088	3782
981	3676	1035	3730	1089	3783
982	3677	1036	3731	1090	3784
983	3678	1037	3732	1091	3785
984	3679	1038	3733	1092	3786
985	3680	1039	3734	1093	3787
986	3681	1040	3735	1094	3788
987	3682	1041	3736	1095	3789
988	3683	1042	3737	1096	3790
989	3684	1043	3738	1097	3791
9 90	3685	1044	3739	1098	3792
991	3686	1045	3740	1099	3793
992	3687	1046	3741	1100	3794
993	3688	1047	3742	1101	3795
· 994	3689	1048	3743	1102	3796
995	3690	1049	3744	1103	3797
996	3691	1050	3745	1104	3798
997	3692	1051	3746	1105	3799
998	3693	1052	3747	1106	3800
999	3694	1053	3748	1107	3801
1000	3695	1054	3749	1108	3802
1001	3696	1055	3750	1109	3803
1002	3697	1056	3751	1110	3804
1003	3698	1057	3752	1111	3805
1004	3699	1058	3753	1112	3806
1005	3700	1059	3754	1113	3807
1006	3701	1060	3755	1114	3808
1007	3702	1061	3756	1115	3809
1008	3703	1062	3757	1116	3810
1009	3704	1063	3758	1117	3811
1010	3705	1064	3759	1118	3812
1011	3706	1065	3760	1119	3813
1012	3707	1066	3761	1120	3814
1013	3708	1067	3762	1121	3815
1014	3709	1068	3763	1122	3816

WO 2002/016655

134

1123	3817	1177	3871	1231	3925
1124	3818	1178	3872	1232	3926
1125	3819	1179	3873	1233	3927
1126	3820	1180	3874	1234	3928
1127	3821	1181	3875	1235	3929
1128	3822	1182	3876	1236	3930
1129	3823	1183	3877	1237	3931
1130	3824	1184	3878	1238	3932
1131	3825	1185	3879	1239	3933
1132	3826	1186	3880	1240	3934
1133	3827	1187	3881	1241	3935
1134	3828	1188	3882	1242	3936
1135	3829	1189	3883	1243	3937
1136	3830	1190	3884	1244	3938
1137	3831	1191	3885	1245	3939
1138	3832	1192	3886	1246	3940
1139	3833	1193	3887	1247	3941
1140	3834	1194	3888	1248	3942
1141	3835	1195	3889	1249	3943
1142	3836	1196	3890	1250	3944
1143	3837	1197	3891	1251	3945
1144	3838	1198	3892	1252	3946
1145	3839	1199	3893	1253	3947
1146	3840	1200	3894	1254	3948
1147	3841	1201	3895	1255	3949
1148	3842	1202	3896	1256	3950
1149	3843	1203	3897	1257	3951
1150	3844	1204	3898	1258	3952
1151	3845	1205	3899	1259	3953
1152	3846	1206	3900	1260	3954
1153	3847	1207	3901	1261	3955
1154 1155	3848	1208	3902	1262	3956
1156	3849 3850	1209 1210	3903	1263	3957
1150	3851	1210	3904 3905	1264	3958
1157	3852	1211	3906	1265	3959
1158	3853	1212	3907	1266	3960
1160	3854	1214	3908	1267 1268	3961
1161	3855	1215	3909	1269	3962
1162	3856	1216	3910	1270	3963 3964
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1164	3858	1218	3912	1271	3966
1165	3859	1219	3913	1273	3967
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1167	3861	1221	3915	1275	3969
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1171	3865	1225	3919	1279	3973
1172	3866	1226	3920	1280	3974
1173	3867	1227	3921	1281	3975
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1175	3869	1229	3923	1283	3977
1176	3870	1230	3924	1284	3978

WO 2002/016655

135

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1286	3980	1340	4033	1394	4087
1287	3981	1341	4034	1395	4088
1288	3982	1342	4035	1396	4089
1289	3983	1343	4036	1397	4090
1290	3984	1344	4037	1398	4091
1291	3985	1345	4038	1399	4092
1292	3986	1346	4039	1400	4093
1293	3987	1347	4040	1401	4094
1294	3988	1348	4041	1402	4095
1295	3989	1349	4042	1403	4096
1296	3990	1350	4043	1404	4097
1297	3991	1351	4044	1405	4098
1298	3992	1352	4045	1406	4099
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1300	3994	1354	4047	1408	4101
1301	3995	1355	4048	1409	4102
1302	3996	1356	4049	1410	4103
1303	3997	1357	4050	1411	4104
1304	3998	1358	4051	1412	4105
1305	3999	1359	4052	1413	4106
1306	4000	1360	4053	1414	4107
1307	4001	1361	4054	1415	4108
1308	4002	1362	4055	1416	4109
1309	4003	1363	4056	1417	4110
1310	4004	1364	4057	1418	4111
1311	4005	1365	4058	1419	4112
1312	4006	1366	4059	1420	4113
1313	4007	1367	4060	1421	4114
1314	4008	1368	4061	1422	4115
1315	4009	1369	4062	1423	4116
1316	4010	1370	4063	1424	4117
1317	4011	1371	4064	1425	4118
1318	4012	1372	4065	1426	4119
1319	4013	1373	4066	1427	4120
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1321	4015	1375	4068	1429	4122
1322	4016	1376	4069	1430	4123
1323	4017	1377	4070	1431	4124
1324	4018	1378	4071	1432	NONE
1325	4019	1379	4072	1433	4125
1326	4020	1380	4073	1434	4126
1327	4021	1381	4074	1435	4127
1328	4022	1382	4075	1436	4128
1329	4023	1383	4076	1437	4129
1330	NONE	1384	4077	1438	4130
1331	4024	1385	4078	1439	4131
1332	4025	1386	4079	1440	4132
1333	4026	1387	4080	1441	4133
1334	4027	1388	4081	1442	4134
1335	4028	1389	4082	1443	4135
1336	4029	1390	4083	1444	4136
1337	4030	1391	4084	1445	4137
1338	4031	1392	4085	1446	4138

1447	4139	1501	4193	1555	4247
1448	4140	1502	4194	1556	4248
1449	4141	1503	4195	1557	4249
1450	4142	1504	4196	1558	NONE
1451	4143	1505	4197	1559	4250
1452	4144	1506	4198	1560	4251
1453	4145	1507	4199	1561	4252
1454	4146	1508	4200	1562	4253
1455	4147	1509	4201	1563	4254
1456	4148	1510	4202	1564	4255
1457	4149	1511	4203	1565	4256
1458	4150	1512	4204	1566	4257
1459	4151	1513	4205	1567	4258
1460	4152	1514	4206	1568	4259
1461	4153	1515	4207	1569	4260
1462	4154	1516	4208	1570	4261
1463	4155	1517	4209	1571	4262
1464	4156	1518	4210	1572	4263
1465	4157	1519	4211	1573	4264
1466	4158	1520	4212	1574	4265
1467	4159	1521	4213	1575	4266
1468	4160	1522	4214	1576	4267
1469	4161	1523	4215	1577	4268
1470	4162	1524	4216	1578	4269
1471	4163	1525	4217	1579	4270
1472	4164	1526	4218	1580	4271
1473	4165	1527	4219	1581	4272
1474	4166	1528	4220	1582	4273
1475	4167	1529	4221	1583	4274
1476	4168	1530	4222	1584	4275
1477	4169	1531	4223	1585	4276
1478	4170	1532	4224	1586	4277
1479	4171	1533	4225	1587	4278
1480	4172	1534	4226	1588	4279
1481	4173	1535	4227	1589	4280
1482	4174	1536	4228	1590	4281
1483	4175	1537	4229	1591	4282
1484	4176	1538	4230	1592	4283
1485	4177	1539	4231	1593	4284
1486	4178	1540	4232	1594	4285
1487	4179	1541	4233	1595	4286
1488	4180	1542	4234	1596	4287
1489	4181	1543	4235	1597	4288
1490	4182	1544	4236	1598	4289
1491	4183	1545	4237	1599	4290
1492	4184	1546	4238	1600	4291
1493	4185	1547	4239	1601	4292
1494	4186	1548	4240	1602	4293
1495	4187	1549	4241	1603	4294
1496	4188	1550	4242	1604	4295
1497	4189	1551	4243	1605	4296
1498	4190	1552	4244	1606	4297
1499	4191	1553	4245	1607	4298
1500	4192	1554	4246	1608	4299

137 ·

1609	4300	1663	NONE	1717	4406
1610	4301	1664	4354	1718	4407
1611	4302	1665	4355	1719	4408
1612	4303	1666	4356	1720	4409
1613	4304	1667	4357	1721	4410
1614	4305	1668	4358	1722	4411
1615	4306	1669	4359	1723	4412
1616	4307	1670	4360	1724	4413
1617	4308	1671	4361	1725	4414
1618	4309	1672	4362	1726	4415
1619	4310	1673	4363	1727	4416
1620	4311	1674	4364	1728	4417
1621	4312	1675	4365	1729	4418
1622	4313	1676	4366	1730	4419
1623	4314	1677	4367	1731	4420
1624	4315	1678	4368	1732	4421
1625	4316	1679	4369	1733	4422
1626	4317	1680	4370	1734	4423
1627	4318	1681	4371	1735	4424
1628	4319	1682	4372	1736	4425
	4320	1683	4373	1737	4426
1629	4321	1684	4374	1738	4427
1630	4322	1685	4375	1739	4428
1631		1686	4376	1740	4429
1632	4323	1687	4377	1741	4430
1633	4324	1688	4378	1742	4431
1634	4325		4379	1742	4432
1635	4326	1689	4380	1744	4433
1636	4327	1690	4381	1745	4434
1637	4328	1691		1746	4435
1638	4329	1692	4382		4436
1639	4330	1693	4383	1747	4437
1640	4331	1694	4384	1748	4437
1641	4332	1695	4385	1749	4438
1642	4333	1696	4386	1750	4440
1643	4334	1697	4387	1751	4440 4441
1644	4335	1698	4388	1752	
1645	4336	1699	4389	1753	4442 4443
1646	4337	1700	4390	1754	
1647	4338	1701	4391	1755	4444
1648	4339	1702	4392	1756	4445
1649	4340	1703	4393	1757	4446
1650	4341	1704	4394	1758	4447
1651	4342	1705	4395	1759	4448
1652	4343	1706	4396	1760	4449
1653	4344	1707	4397	1761	4450
1654	4345	1708	4398	1762	4451
1655	4346	1709	4399	1763	4452
1656	4347	1710	4400	1764	4453
1657	4348	1711	4401	1765	4454
1658	4349	1712	NONE	1766	4455
1659	4350	1713	4402	1767	4456
1660	4351	1714	4403	1768	4457
1661	4352	1715	4404	1769	4458
1662	4353 •	1716	4405	1770	4459

138

1771	4460	1825	4512	1879	4566
1772	4461	1826	4513	1880	4567
1773	4462	1827	4514	1881	4568
1774	4463	1828	4515	1882	4569
1775	4464	1829	4516	1883	4570
1776	4465	1830 .	4517	1884	4571
1777	4466	1831	4518	1885	4572
1778	4467	1832	4519	1886	4573
1779	4468	1833	4520	1887	4574
1780	4469	1834	4521	1888	4575
1781	4470	1835	4522	1889	4576
1782	4471	1836	4523	1890	4577
1783	4472	1837	4524	1891	4578
1784	NONE	1838	4525	1892	4579
1785	4473	1839	4526	1893	4580
1786	4474	1840	4527	1894	4581
1787	4475	1841	4528	1895	4582
1788	4476	1842	4529	1896	4583
1789	4477	1843	4530	1897	NONE
1790	4478	1844	4531	1898	4584
1791	4479	1845	4532	1899	4585
1792	4480	1846	4533	1900	4586
1793	4481	1847	4534	1901	4587
1794	4482	1848	4535	1902	4588
1795	4483	1849	4536	1903	4589
1796	4484	1850	4537	1904	4590
1797	4485	1851	4538	1905	4591
1798	4486	1852	4539	1906	4592
1799	4487	1853	4540	1907	NONE
1800	4488	1854	4541	1908	4593
1801	4489	1855	4542	1909	4594
1802	4490	1856	4543	1910	4595
1803	NONE	1857	4544	1911	4596
1804	4491	1858	4545	1912	4597
1805	4492	1859	4546	1913	4598
1806	4493	1860	4547	1914	4599
1807	4494	1861	4548	1915	4600
1808	4495	1862	4549 4550	1916	4601
1809	4496	1863	4550 4651	1917	4602
1810	4497	1864	4551 4552	1918	4603
1811	4498	1865		1919	4604
1812	4499	1866	4553 4554	1920	4605 4606
1813	4500	1867 1868	4555	1921 1922	
1814	4501	1869	4556		4607
1815	4502		4557	1923	4608
1816	4503	1870	4558	1924	4609
1817	4504 4505	1871 1872	4559	1925 1926	4610 4611
1818	4505 4506	1872	4560	1926 1927	
1819	4506 4507	1874	4561	1927	4612
1820	4507 4508	1874 1875	4562	1928	4613
1821	4508 4509	1876	4563	1929	4614
1822		1877	4564	1930	4615
1823	4510	1878	4565	1931	4616
1824	4511	10/0	- COC+	1734	4617

139

1933	4618	1987	4672	2041	4725
1934	4619	1983	4673	2042	4726
1935	4620	1989	4674	2043	4727
1936	4621	1990	4675	2044	4728
1937	4622	1991	4676	2045	4729
1938	4623	1992	4677	2046	4730
1939	4624	1993	4678	2047	4731
1940	4625	1994	4679	2048	4732
1941	4626	1995	4680	2049	4733
1942	4627	1996	4681	2050	4734
1943	4628	1997	4682	2051	4735
1944	4629	1998	4683	2052	4736
1945	4630	1999	4684	2053	4737
1946	4631	2000	4685	2054	4738
1947	4632	2001	4686	2055	4739
1948	4633	2002	4687	2056	4740
1949	4634	2003	4688	2057	4741
1950	4635	2004	4689	2058	4742
1951	4636	2005	4690	2059	4743
1952	4637	2006	4691	2060	4744
1953	4638	2007	4692	2061	4745
1954	4639	2008	4693	2062	4746
1955	4640	2009	4694	2063	4747
1956	4641	2010	4695	2064	4748
1957	4642	2011	4696	2065	4749
1958	4643	2012	4697	2066	4750
1959	4644	2013	4698	2067	4751
1960	4645	2014	4699	2068	4752
1961	4646	2015	4700	2069	4753
1962	4647	2016	4701	2070	4754
1963	4648	2017	4702	2071	4755
1964	4649	2018	4703	2072	4756
1965	4650	2019	4704	2073	4757
1966	4651	2020	4705	2074	4758
1967	4652	2021	4706	2075	4759
1968	4653	2022	4707	2076	4760
1969	4654	2023	4708	2077	4761
1970	4655	2024	4709	2078	4762
1971	4656	2025	4710	2079	4763
1972	4657	2026	4711	2080	4764
1973	4658	2027	4712	2081	4765
1974	4659	2028	4713	2082	4766
1975	4660	2029	4714	2083	4767
1976	4661	2030	NONE	2084	4768
1977	4662	2031	4715	2085	4769
1978	4663	2032	4716	2086	4770
1979	4664	2033	4717	2087	4771
1980	4665	2034	4718	2088	4772
1981	4666	2035	4719	2089	4773
1982	4667	2036	4720	2090	4774
1983	4668	2037	4721	2091	4775
1984	4669	2038	4722	2092	4776
1985	4670	2039	4723	2093	4777
1986	4671	2040	4724	2094	4778
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WO 2002/016655

PCT/US2001/026685

140

2095 4779 2149 4833 2203 4886 2097 4781 2150 4834 2204 4887 2098 4782 2152 4835 2206 4889 2099 4783 2153 4836 2207 4890 2100 4784 2154 4837 2208 4891 2101 4785 2155 4838 2209 4892 2102 4786 2156 4839 2210 4893 2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 44843 2214 4897 2107 490 2160 4843 2215 4898 2106 4790 2160 4843 2216 4899 2107 4900 2107 4900 2160 4844						
2096				4833	2203	4886
2097 4781 2151 NONE 2205 4888 2098 4782 2152 4835 2206 4889 2099 4783 2153 4836 2207 4890 2100 4784 2154 4837 2208 4891 2101 4785 2155 4838 2209 4892 2102 4786 2156 4839 2210 4893 2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2220 4903 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4806 2174 4857 2228 4911 2122 4806 2176 4859 2230 4913 2122 4806 2176 4859 2230 4913 2123 4806 2176 4859 2231 4806 2176 4859 2231 4806 2170 4851 2222 4908 2119 4802 2172 4855 2226 4908 2119 4802 2172 4855 2226 4908 2119 4802 2172 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4806 2176 4859 2230 4913 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4857 2228 4915 2125 4808 2178 4866 2237 4910 2120 4804 2174 4857 2228 4915 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4916 2124 4808 2178 4866 2237 4910 2124 4807 2177 4860 2231 4914 2124 4808 2178 4866 2237 4910 2124 4807 2177 4860 2231 4915 2125 4809 2179 4862 2233 4916 2125 4809 2179 4862 2233 4916 2125 4809 2179 4862 2233 4916 2125 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2125 4808 2178 4867 2238 4911 2121 4808 2178 4866 2237 4920 2133 4816 2180 4867 2234 4927 2133 4816 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2125 4808 2178 4867 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2125 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 4924 2124 4826 2180 4863 2235 4918 2125 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 4924 2124 4826 2180 4863 2235 4918 2125 4806 2176 4859 2230 4913 2124 4826 2186 4869 2240 4923 2133 4816 2180 4867 2235 4936 2244 4927 2133 4816 2180 4867 2235 4936 2235 4936 2244 4927 2133 4		4780	2150	4834	2204	
2098 4783 2153 4835 2206 4889 2100 4784 2153 4836 2207 4890 2100 4784 2154 4837 2208 4891 2101 4785 2155 4838 2209 4892 2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4789 2159 4843 2214 4897 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2166		4781	2151	NONE	2205	
2099 4783 2153 4836 2207 4890 2100 4784 2154 4837 2208 4891 2101 4785 2155 4838 2209 4892 2102 4786 2156 4839 2210 4893 2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167	2098	4782	2152	4835		
2100	2099	4783	2153	4836		
2101	2100	4784	2154	4837		
2102 4786 2156 4839 2210 4893 2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2110 4794 2165 4843 2219 4902 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4905 2114 4798 2168 4851 2222 4905 2115 4799 2169	2101	4785	2155	4838		
2103 4787 2157 4840 2211 4894 2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4889 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4905 2114 4798 2168 4851 2222 4905 2115 4797 2167 4853 2224 4905 2116 4800 2170 4853 2222 2905 2116 4800 2170	2102	4786	2156			
2104 4788 2158 4841 2212 4895 2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2108 4792 2162 4845 2216 4898 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4905 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4851 2225	2103	4787	2157	_		
2105 4789 2159 4842 2213 4896 2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4898 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2111 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172	2104	4788	2158	· 4841		
2106 4790 2160 4843 2214 4897 2107 4791 2161 4844 2215 4888 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2166 4849 2220 4903 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173	2105	4789				
2107 4791 2161 4844 2215 4888 2108 4792 2162 4845 2216 4899 2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174	2106	4790				
2108 4792 2162 4845 2216 4899 2109 4793 2163 4346 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175						
2109 4793 2163 4846 2217 4900 2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176						
2110 4794 2164 4847 2218 4901 2111 4795 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2121 4806 2176 4859 2230 4913 2123 4806 2176						
2111 4796 2165 4848 2219 4902 2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178						
2112 4796 2166 4849 2220 4903 2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179						
2113 4797 2167 4850 2221 4904 2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180						
2114 4798 2168 4851 2222 4905 2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181						
2115 4799 2169 4852 2223 4906 2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182						
2116 4800 2170 4853 2224 4907 2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183						
2117 4801 2171 4854 2225 4908 2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184						
2118 4802 2172 4855 2226 4909 2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185						
2119 4803 2173 4856 2227 4910 2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2181 4864 2235 4918 2128 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186						
2120 4804 2174 4857 2228 4911 2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187						
2121 4805 2175 4858 2229 4912 2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188						
2122 4806 2176 4859 2230 4913 2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189						
2123 4807 2177 4860 2231 4914 2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874						
2124 4808 2178 4861 2232 4915 2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875						
2125 4809 2179 4862 2233 4916 2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876						
2126 4810 2180 4863 2234 4917 2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877						
2127 4811 2181 4864 2235 4918 2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878						
2128 4812 2182 4865 2236 4919 2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879						
2129 4813 2183 4866 2237 4920 2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879						
2130 4814 2184 4867 2238 4921 2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881						
2131 4815 2185 4868 2239 4922 2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882						
2132 4816 2186 4869 2240 4923 2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883						
2133 4817 2187 4870 2241 4924 2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884						
2134 4818 2188 4871 2242 4925 2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2135 4819 2189 4872 2243 4926 2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2136 4820 2190 4873 2244 4927 2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2137 4821 2191 4874 2245 4928 2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2138 4822 2192 4875 2246 4929 2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2139 4823 2193 4876 2247 4930 2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2140 4824 2194 4877 2248 NONE 2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937				- · -		
2141 4825 2195 4878 2249 4931 2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937				- · · -		
2142 4826 2196 4879 2250 4932 2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2143 4827 2197 4880 2251 4933 2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2144 4828 2198 4881 2252 4934 2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2145 4829 2199 4882 2253 4935 2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						
2146 4830 2200 4883 2254 4936 2147 4831 2201 4884 2255 4937						4934
2147 4831 2201 4884 2255 4937						4935
	2146				2254	4936
2148 4832 2202 4885 2256 4938	2147					4937
	2148	4832	2202	4885	2256	4938

141

2257	4939	2311	4993	2365	5046
2258	4940	2312	4994	2366	5047
2259	4941	2313	4995	2367	5048
2260	4942	2314	4996	2368	5049
2261	4943	2315	4997	2369	5050
2262	4944	2316	4998	2370	5051
2263	4945	2317	4999	2371	NONE
2264	4946	2318	5000	2372	5052
2265	4947	2319	5001	2373	5053
2266	4948	2320	5002	2374	5054
2267	4949	2321	5003	2375	5055
2268	4950	2322	5004	2376	5056
2269	4951	2323	5005	2377	5057
2270	4952	2324	5006	2378	5058
2271	4953	2325	5007	2379	5059
2272	4954	2326	5008	2380	5060
2273	4955	2327	5009	2381	5061
2274	4956	2328	5010	2382	5062
2275	4957	2329	5011	2383	5063
2276	4958	2330	5012	2384	5064
2277	4959	2331	5013	2385	5065
2278	4960	2332	5014	2386	5066
2279	4961	2332	5015	2387	5067
2279	4962	2334	5016	2388	5068
2280	4962 4963	2335	5017	2389	5069
	4963 4964	2336	5018	2390	5070
2282	4964	2337	5019	2391	5070 5071
2283		2338			
2284	4966		5020	2392	5072
2285	4967	2339	5021	2393	5073
2286	4968	2340	NONE	2394	5074
2287	4969	2341	5022	2395	5075
2288	4970	2342	5023	2396	5076
2289	4971	2343	5024	2397	5077
2290	4972	2344	5025	2398	5078
2291	4973	2345	5026	2399	5079
2292	4974	2346	5027	2400	5080
2293	4975	2347	5028	2401	5081
2294	4976	2348	5029	2402	5082
2295	4977	2349	5030	2403	5083
2296	4978	2350	5031	2404	5084
2297	4979	2351	5032	2405	5085
2298	4980	2352	5033	2406	5086
2299	4981	2353	5034	2407	5087
2300	4982	2354	5035	2408	5088
2301	4983	2355	5036	2409	5089
2302	4984	2356	5037	2410	5090
2303	4985	2357	5038	2411	5091
2304	4986	2358	5039	2412	5092
2305	4987	2359	5040	2413	5093
2306	4988	2360	5041	2414	5094
2307	4989	2361	5042	2415	5095
2308	4990	2362	5043	2416	5096
2309	4991	2363	5044	2417	5097
2310	4992	2364	5045	2418	5098

WO 2002/016655

142

2419	50 99	2473	5151	2527	5205
2420	5100	2474	5152	2528	5206
2421	5101	2475	5153	2529	5207
2422	5102	2476	5154	2530	
2423	5103	2477	5155		5208
2424	5104	2478	5156	2531	5209
2425	5105	2479		2532	5210
2426	5106		5157	2533	5211
2427		2480	5158	2534	5212
	5107	2481	5159	2535	5213
2428	5108	2482	5160	2536	5214
2429	5109	2483	5161	2537	5215
2430	5110	2484	5162	2538	5216
2431	5111	2485	5163	2539	5217
2432	- 5112	2486	5164	2540	5218
2433	5113	2487	5165	2541	5219
2434	5114	2488	5166	2542	5220
2435	5115	2489	5167	2543	5221
2436	5116	2490	5168	2544	5222
2437	5117	2491	5169	2545	5223
2438	5118	2492	5170	2546	5224
2439	5119	2493	5171	2547	5225
2440	5120	2494	5172	2548	
2441	5121	2495	5172		5226
2442	5122	2496	5174	2549	5227
2443	NONE	2497		2550	5228
2444	5123		5175	2551	5229
2444 2445		2498	5176	2552	5230
	5124 5125	2499	5177	2553	5231
2446	5125	2500	5178	2554	5232
2447	5126	2501	5179	2555	5233
2448	5127	2502	5180	2556	5234
2449	5128	2503	5181	2557	5235
2450	5129	2504	5182	2558	5236
2451	5130	2505	5183	2559	5237
2452	5131	2506	5184	2560	5238
2453	5132	2507	5185	2561	5239
2454	5133	2508	5186	2562	5240
2455	5134	2509	5187	2563	5241
2456	5135	2510	5188	2564	5242
2457	5136	2511	5189	2565	5243
2458	5137	2512	5190	2566	5244
2459	5138	2513	5191	2567	5245
2460	5139	2514	5192	2568	5246
2461	5140	2515	5193	2569	5240 5247
2462	5141	2516	5194	2570	
2463	5142	2517	5195		5248
2464	5143	2518		2571	5249
			5196	2572	5250
2465 2466	5144 5145	2519	5197	2573	5251
	5145	2520	5198	2574	5252
2467	5146	2521	5199	2575	5253
2468	5147	2522	5200	2576	5254
2469	NONE	2523	5201	2577	5255
2470	5148	2524	5202	2578	5256
2471	5149	2525	5203	2579	5257
2472	5150	2526	5204	2580	5258
					-

TABLE 2 (cont)

2581	5259	2635	5312
2582	5260	2636	5313
2583	5261	2637	5314
2584	5262	2638	5315
2585	5263	2639	5316
2586	5264	2640	5317
2587	5265	2641	5318
2588	5266	2642	5319
2589	5267	2643	5320
2590	5268	2644	5321
2591	5269	2645	5322
2592	5270	2646	5323
2593	5271	2647	5324
2594	5272	2648	5325
2595	5273	2649	5326
2596	5274	2650	5327
2590 2597	5275	2651	5328
	5276	2652	5329
2598	NONE	2653	5330
2599	5277	2654	5331
2600	5278	2655	5332
2601	5278 5279	2656	5333
2602		2657	5334
2603	5280 5281	2658	5335
2604	5282	2659	5336
2605	5282 5283	2660	5337
2606	5284	2661	5338
2607		2662	5339
2608	5285 5286	2663	5340
2609	5286 5287	2664	5341
2610	5287	2665	5342
2611	5288	2666	5343
2612	5289	2667	5344
2613	5290	2668	5345
2614	5291	2669	5346
2615	5292	2670	5347
2616	5293	2671	5348
2617	5294		5349
2618	5295	2672 2673	5350
2619	5296	2674	5351
2620	5297	2675	5352
2621	5298		5353
2622	5299	2676 2677	5354
2623	5300	2677	5355
2624	5301	2678	5356
2625	5302	2679	5357
2626	5303	2680	NONE
2627	5304	2681	5358
2628	5305	2682	5359
2629	5306	2683	5360
2630	5307	2684	5361
2631	5308	2685	
2632	5309	2686	5362 5363
2633	· 5310	2687	5364
2634	5311	2688	330 4

144

TABLE 3

COLD RESPONSIVE SEQUENCES

ano	A DELG COMP INC	aro	4 700 A 47000 FT		
SEQ	AFFYMETRIX	SEQ	AFFYMETRIX	SEQ	AFFYMETRIX
ID NO		ID NO:		ID NO:	ID NO:
1	11991_G_AT		12269_S_AT	98	12550_S_AT
2	11992_AT	51	12270_AT		17103_S_AT
3	11997_AT	52	12284_AT	99	12552_AT
4	11998_AT	53	12287_S_AT	100	12555_S_AT
5	12001_AT		17570_G_AT	101	12576_S_AT
6	12006_S_AT	54	12293_AT	102	12581_S_AT
7	12007_AT	55	12294_S_AT		16645_S_AT
8	12009_AT	56	12300_AT	103	12587_AT
9	12018_AT	57	12307_AT	104	12597_AT
10	12022_AT	58	12312_AT	105	12602_AT
11	12026_AT	59	12315_AT	106	12610_AT
12	12031_AT	60	12324_I_AT	107	12631_AT
13	12047_AT	61	12331_S_AT	108	12646_AT
14	12051_AT	62	12336_AT	109	12649_AT
15	12052_AT	63	12344_AT	110	12650_AT
16	12053_AT	64	12348_AT	111	12653_AT
17	12060_AT	65	12353_AT	112	12661_AT
18	12072_AT	66	12359_S_AT	113	12666_AT
19	12074_AT	67	12372_AT	114	12674_AT
20	12102_AT	68	12374_I_AT	115	12675_S_AT
21	12112_AT		12726_F_AT	116	12678_I_AT
22	12117_AT	69	12390_AT	117	12681_S_AT
23	12125_AT	70	12395_S_AT	118	12688_AT
24	12130_AT	71	12405_AT	119	12702_AT
25	12143_AT	72	12408_AT	120	12705_F_AT
26	12145_S_AT	73	12410_G_AT	121	12736_F_AT
27	12149_AT	74	12419_AT	122	12737_F_AT
28	12156_AT	75	12427_AT	123	12758_AT
29	12163_AT	76	12431_AT	124	12760_G_AT
30	12166_I_AT	77	12436_AT	125	12762_R_AT
31	12167_AT	78	12438_AT	126	12764_F_AT
32	12169_I_AT	79	12443_S_AT	127	12766_AT
33	12175_AT	80	12447_AT		15115_F_AT
34	12176_AT	81	12450_S_AT	128	12767_AT
35	12179 AT	82	12452_AT	129	12768_AT
36	12187_AT	83	12474_AT	130	12772_AT
	15920 I AT	84	12477_AT	131	12773_AT
37	12195_AT	85	12491_AT	132	12776_AT
38	12196 AT	86	12497_AT	133	12788_AT
39	12198 AT	87	12500_S_AT	134	12793_AT
40	12200_AT	88	12503_AT	135	12794_AT
41	12202 AT	89	12515_AT	136	12802_AT
42	12214_G_AT	90	12516_S_AT	137	12809_G_AT
43	12219_AT	91	12523 AT	138	12812_AT
44	12224_AT	92	12526_AT	139	12815_AT
45	12226 AT	93	12527_AT	140	12816 AT
46	12233_AT	94	12532_AT	141	12818_AT
47	12240_AT	95	12534_G_AT	142	12824_S_AT
48	12253_G_AT	96	12544 AT	143	12828 S AT
49	12256_AT	97	12549_S_AT	144	12842_S_AT
17	<u>-</u>	= -	- -		

PCT/US2001/026685

145

145	12846_S_AT	194	13086_R_AT	238	13285 S AT
146	12858_AT	195	13087_AT	239	13288_S_AT
147	12860 S AT	196	13090 AT		17043_S_AT
148	12861_S_AT	197	13092_S_AT	240	13292_S_AT
149	12881_S_AT		16950 S AT	241	13296_S_AT
	17600 S AT	198	13098 AT	242	13297_S_AT
150	12889_S_AT	199	13100_AT	. 243	13299_S_AT
151	12901 S AT	200	13103_AT	, 273	15166 S AT
152	12902_AT	201	13105_AT	244	13332 AT
153		202		245	
	12904_S_AT		13107_S_AT		13347_AT
154	12905_S_AT	203	13108_AT	246	13351_AT
155	12908_S_AT	204	13109_AT	247	13352_AT
156	12910_S_AT	205	13114_AT	248	13355_AT
	16385_S_AT	206	13118_F_AT	249	13404_AT
157	12914_S_AT	207	13119_AT	250	13422_AT
	15783_S_AT	208	13120_AT	251	13459_AT
	17645_S_AT	209	13123_AT	252	13460_AT
158	12916_S_AT	210	13128_AT	253	13461_S_AT
159	12923_S_AT	211	13133_S_AT	254	13467_AT
160	12926_S_AT		17430 S AT	255	13488_AT
161	12927_S_AT	212	13135_S_AT	256	13523 S AT
162	12931 S_AT	213	13139_AT	257	13529_AT
163	12937 R AT	214	13140 AT	258	13539 I AT
164	12941 G AT	215	13143_AT		14631_S_AT
165	12942_AT	216	13151 G_AT	259	13541 AT
166	12947_AT	217	13160_AT	260	13542_AT
167	12949_AT	218	13161_AT	261	13545 S AT
168	12945_AT	219	13162 AT	262	13552_AT
	_	220	13165_AT	263	13556_I_AT
169	12956_I_AT	221	13166_AT	264	13561_AT
170	12959_AT			265	13563_S_AT
171	12966_S_AT	222	13167_AT		
172	12975_AT	223	13179_AT	266	13567_AT
173	12983_AT	224	13181_AT	267	13568_AT
174	12984_AT	225	13185_AT	268	13571_AT
175	12987_S_AT	226	13193_S_AT	269	13575_AT
176	12994_S_AT	227	13213_S_AT	270	13576_AT
177	13002_AT		16004_S_AT	271	13583_AT
178	13009_I_AT	228	13219_S_AT	272	13598_AT
179	13011_AT		20288_G_AT	273	13601_AT
180	13018_AT	229	13220_S_AT	274	13604_AT
181	13023_AT		13221_AT	275	13613_AT
182	13024_AT		18929_S_AT	276	13616_S_AT
183	13034_S_AT	230	13233_AT		16544_S_AT
184	13046_G_AT		14301_S_AT	277	13617_AT
185	13048_S_AT	231	13243 R AT	278	13618 S AT
	13495_S_AT	232	13254 S AT	279	13619 AT
186	13054 AT	233	13260 S_AT	280	13621 G_AT
187	13067_S_AT		15660 S_AT	281	13623 R_AT
188	13068_AT	234	13273 S_AT	282	13629 S AT
189	13073_S_AT	:	16105 S_AT	283	13631 AT
190	13078 S AT	235	13274 S_AT	284	13635 AT
191	13079 AT		17077 S AT	285	13646 AT
	13081 S AT	236	13276_S_AT	286	13650 AT
192	13081_3_AT	237	13278_F_AT	287	13653 AT
193	12002 W1	431	23270_1_711	201	

146

288	13655_AT	332	13989_AT	383	14393_AT
289	13656_AT		20674_S_AT	384	14421 AT
290	13657_AT	333	14010_AT	385	14436_AT
291	13666_S_AT	334	14013_AT	386	14448_AT
	17083_S_AT	335	14014_AT	387	14450 AT
292	13667_S_AT	336 337	14019_AT	388	14454_AT
293	13669_S_AT	337	14021 R AT	389	14459 AT
	17074_S_AT	338	14025 S AT	390	14478_AT
294	13670 S AT		18909_S_AT	391	14482 AT
	15206 S AT	339		392	14485 AT
295	13671_S_AT	340	14030_AT	393	14492 S AT
	16805_S_AT	341	14044 AT	394	14505 AT
296	13678 S AT	342	14048 AT	395	14510_AT
297	13688 S AT	343	14056 AT	396	14511 AT
298	13690 S_AT	344		397	14517_AT
	16065_S_AT	345	14058_AT	398	14519_AT
299	13691_S_AT	340	14039 A1	399	14525_S_AT
	16117_S_AT	347	14061 AT	400	14527_AT
300	13692 S AT	348		401	14534 S AT
	16118_S_AT	349		402	14538 R AT
301	13700_AT			403	14554_AT
302	13704 S AT	351	14074 AT	404	14558 AT
303	13714_AT	352	14084 AT	405	14559 S AT
304	13715 AT	353	14095 S AT	406	14566 AT
305	13724 AT	354	14100_AT	407	14572_AT
306	13748_AT	355	14101 AT	408	14579 AT
307	13759_AT	356	14103 AT	409	14587_AT
308	13767_AT	357	14105 AT	410	14591_AT
309	13785 AT	358	14106 AT	411	14595 AT
310	13803_AT	359	14121 AT	412	14602 AT
311	13850_I_AT	360	14129 S AT	413	14603_AT
312	13876_AT	361	14133_S_AT	414	14605 AT
313	13880 S_AT	362	14143_AT	415	
314	13883_AT	363	14145 AT	416	14626 S AT
315	13887_S_AT	364	14148 AT	417	14630_S_AT
316	13895_AT	365	14186 AT		16559_S_AT
317	13904 S AT	366	14194 AT	418	14637 S AT
317	18722_S_AT	367	14196 AT		17122_S_AT
318	13906 S AT	368	14223 AT	419	14642_F_AT
319	13908_S_AT	369	14234_AT	420	14650_S_AT
317	18597 AT	370	14236 AT		15150_S_AT
320	13923_AT	371	14251 F AT	421	14654 S AT
321	13927_AT	372	14252 F AT	422	14667 S AT
322	13932_AT	373	14270_AT		18299_S_AT
323	13935_AT	374	14298 G AT	423	14669_S_AT
324	13940 AT	J	17581_G_AT	.23	16136 S AT
325	13949 S AT	375	14303 S AT	424	14672_S_AT
326	13954 G AT	376	14312 AT	425	14679 S_AT
327	13971 S_AT	377	14316 AT	426	14682 I AT
328	13973_AT	378	14339_AT	427	14689 AT
329	13983_AT	379	14366 AT	428	14697 G AT
330	13985_S_AT	380	14369_AT		16902_AT
331	13987_S_AT	381	14388 AT	429	14701_S_AT
17.1	18738 F AT	382	14392 G AT	,	14734_S_AT
	10/30_1_A1				- · · · · · · · · · · · · · · · · · · ·

PCT/US2001/026685

147

430	14703_AT	483	15130_S_AT	534	15489_AT
431	14711_S_AT	484	15131_S_AT	535	15490 AT
432	14712_S_AT	485	15132_S_AT	536	15503_AT
	20530_S_AT		17585_S_AT	537	15505 AT
433	14713_S_AT	486	15139_S_AT	538	15510 R AT
434	14715_S_AT	487	15143_S_AT	539	15512_AT
435	14728_S_AT	488	15146_S_AT	540	15514 AT
436	14731_S_AT	489	15159_S_AT	541	15515_R_AT
437	14781_AT		15160_S_AT	542	15517 S AT
438	14797_S_AT	490	15162_S_AT	543	15518_AT
439	14800_AT	491	15167_S_AT	544	15529_AT
440	14809_AT	492	15171_S_AT	545	15534_F_AT
441	14843_AT	493	15174_F_AT	546	15538_AT
442	14847_AT	494	15178_S_AT	547	15541_AT
443	14872_AT	495	15185_S_AT	548	15543_AT
444	14886_AT		18023_S_AT	549	15544_AT
445	14896_AT	496	15188_S_AT	550	15551_AT
446	14900_AT	497	15193_S_AT	551	15574_S_AT
447	14908_AT	498	15196_S_AT	552	15576_S_AT
448	14912_AT	499	15197_S_AT	553	15577_S_AT
449	14914_AT	500	15201_F_AT	554	15578_S_AT
450	14942_AT	501	15213_S_AT	555	15583_S_AT
451	14945_AT	502	15243_AT	556	15588_S_AT
452	14955_AT	503	15256_AT	557	15595_S_AT
453	14957_S_AT	504	15270_AT	558	15600_S_AT
454	14958_AT	505	15319_AT	559	15602_F_AT
455	14965_AT	506	15325_AT	560	15608_S_AT
456	14974_AT	507	15337_AT	561	15613_S_AT
457	14980_AT	508	15341_AT	562	15616_S_AT
458	14981_AT	509	15343_AT	563	15618_S_AT
459	14984_S_AT	510	15348_AT	564	15620_S_AT
460	14995_AT	511	15350_AT	565	15627_S_AT
461	15004_AT	512	15355_S_AT	566	15634_S_AT
462	15009_AT	513	15367_AT	•	16125_S_AT
463	15010_AT	514	15372_AT	5.67	18046_S_AT
464	15024_AT	515 516	15379_AT	567	15637_S_AT 15639_S_AT
465	15026_AT	516 517	15381_AT	568 560	
466	15036_R_AT	517	15383_AT	569 570	15642_S_AT
467 468	15054_AT 15056 AT	519	15384_AT 15385 AT	571	15643_S_AT 15651_F_AT
469	15056_AT 15057 AT	520	15385_AT 15387_AT	572	15652_S_AT
	15057_AT 15066_AT	521	15410 AT	573	15665_S_AT
470 471	15000_AT 15073_AT	522	15410_A1 15417_S_AT	574	15667 S AT
472	15075_AT 15081_AT	523	15417_5_A1 15422_AT	374	18610_S_AT
473	15081_AT	524	15423_AT	575	15668_S_AT
474	15085_AT 15091 AT	525	15423_AT	576	15671_S_AT
475	15091_A1 15097_S_AT	526	15431_AT	577	15675 S AT
475	15101 S AT	527	15452_AT	578	15679_S_AT
477	15101_S_AT 15102_S_AT	528	15464_AT	579	15685_S_AT
478	15102_S_AT 15107 S AT	529	15468_AT	580	15687_F_AT
479	15107_S_AT	530	15471_AT	581	15688_S_AT
480	15116_F_AT	531	15472 AT	582	15689_S_AT
481	15118_S_AT	532	15475_S_AT	583	15692_S_AT
482	15122 S_AT	533	15485 AT	584	15694_S_AT
					

148

					
585	15712_S_AT	634	16089_S_AT	686	16496_S_AT
586	15808_AT	635	16090_S_AT	687	16499 AT
587	15845_AT	636	16102_S_AT	688	16510_AT
588	15848 AT	637	16103_S_AT	689	16511 AT
589	15850 AT	638	16108_S_AT	690	16512_S_AT
	20406 G AT	639	16112_S_AT		18085_R_AT
590	15858_AT	640	16134 S AT	691	
591		641			16514_AT
	15862_AT		16137_S_AT	692	16516_AT
592	15868_AT	642	16138_S_AT	693	16517_AT
593	15878_AT	643	16140_S_AT	694	16526_AT
594	15894_AT	644	16143_S_AT	695	16528_AT
595	15900_AT	645	16145_S_AT	696	16531_S_AT
596	15901_AT	646	16148_S_AT	697	16535_S_AT
597	15902_AT	647	16151_S_AT	698	16537_S_AT
598	15912_AT	648	16155_S_AT	699	16538_S_AT
599	15913_AT	649	16158_F_AT	700	16543 S AT
600	15928_AT	650	16160_F_AT	701	16550_S_AT
601	15940_AT	651	16162_S_AT	702	16554 S AT
602	15941_AT	652	16168_S_AT	703	16567_S_AT
603	15945 AT	653	16169 S AT	704	16571_S_AT
604	15948 S AT	654	16171 S AT	705	16576_F_AT
605	15956_AT	655	16172 S AT	706	16577 S AT
606	15960 AT	656	16184_AT	707	16579 S AT
000	16466_S_AT	657	16192_AT	707	16580_S_AT
607	15976 AT	658	16222_AT	709	16583_S_AT
	15976_AT 15978_AT	659	16242_AT	710	
608				710	16584_S_AT
609	15986_S_AT	660	16244_AT	711	18706_S_AT
610	15990_AT	661	16250_AT	711	16593_S_AT
611	16009_S_AT	662	16286_AT	712	16595_S_AT
612	16015_AT	663	16288_AT	713	16598_S_AT
613	16019_AT	664	16294_S_AT	714	16604_S_AT
614	16024_AT	665	16296_AT	715	16605_S_AT
615	16034_AT	666	16297_AT	716	16610_S_AT
616	16036_I_AT	667	16325_AT	717	16611_S_AT
	18729_AT	668	16346_S_AT	718	16614_S_AT
617	16039_S_AT	669	16357_AT	719	16617_S_AT
618	16040 AT	670	16380_AT	720	16618_S_AT
619	16042_S_AT	671	16382_AT	721	16620_S_AT
620	16047_AT	672	16393 S AT	722	16621_S_AT
621	16049_S_AT	673	16402_S_AT	723	16631_S_AT
622	16051_S_AT	674	16411 S AT	724	16634_S_AT
623	16055 S AT	675	16442 S AT	725	16635 S AT
624	16059_S_AT	676	16446_AT	726	16636_S_AT
625	16062_S_AT	677	16448 G AT	727	16639 S AT
626	16066 S AT	678	16453 S AT	728	16640_S_AT
627	16069_S_AT	679	16457 S AT	729	16650_S_AT
	16074 S AT	680	16465 AT	730	16652 S AT
628		000	16916_S_AT	730 731	16654_AT
629	16076_S_AT	601			
630	16077_S_AT	681	16470_S_AT	732	16672_AT
	17579_S_AT	600	18735_S_AT	733	16673_AT
631	16079_S_AT	682	16481_S_AT	734	16687_S_AT
632	16084_S_AT	683	16486_AT	735	16747_AT
	17998_S_AT	684	16487_AT	736	16753_AT
633	16087_S_AT	685	16488_AT	737	16768_AT

149

738	16777_AT	790	17123_S_AT	843	17562_AT
739	16784_AT	791	17129_S_AT	844	17564_S_AT
740	16807_AT	792	17132 AT		19361_S_AT
741	16811 AT	793	17166 AT	845	17565 S AT
742	16845 AT	794	17206 AT	846	17568_AT
743	16894 AT	795	17207_AT	847	17573_AT
744	16899_AT	796	17215 AT	848	17577 G AT
745	16911 AT	797	17237 AT	849	17578_AT
	16920_AT	798	17247_AT	850	17596_AT
746		799	17254 AT	851	17627_AT
747	16921_AT	800	17234_AT 17286 AT	852	17631_AT
748	16924_S_AT	800 801		853	17631_AT
749	16926_S_AT		17288_S_AT	854	17672_AT
750	16931_S_AT	802	17292_AT	855	17672_AT
751	16934_S_AT	803	17300_AT		
752	16937_AT	804	17303_S_AT	356	17677_AT
753	16938_AT	805	17318_AT	857	17732_AT
754	16942_AT	806	17319_AT	858	17743_AT
755	16943_S_AT		17322_AT	859	17748_AT
	18231_AT	808	17323_AT	860	17782_AT
756	16949_S_AT	809	17332_S_AT	861	17823_S_AT
757	16952_S_AT	810	17374_AT	862	17841_AT
758	16956_AT	811	17381_AT	863	17849_S_AT
759	16962_S_AT	812	17388_AT	864	17852_G_AT
760	16965_S_AT	813	17392_S_AT	865	17857_AT
761	16970 S_AT	814	17405_AT	866	17865_AT
	18010_S_AT	815	17415_AT	867	17882_AT
762	16977 AT	816	17418_S_AT	868	17885_AT
·763	16984 AT	817	17420_AT	869	17900_S_AT
764	16996_S_AT	818	17423_S_AT	870	17910_AT
765	16997_AT	819	17426_AT	871	1 7911_AT
766	17000 AT	820	17427_AT	872	17916_AT
767	17005_AT	821	17429_S_AT	873	17917_S_AT
768	17010_S_AT	822	17431_AT	874	17918_AT
769	17017_S_AT	823	17439_G_AT	875	17921_S_AT
770	17031_S_AT	824	17457_AT	876	17922_AT´
771	17033_S_AT	825	17458_AT	877	17926_S_AT
772	17053_S_AT	826	17462_S_AT	878	17933_AT
773	17055_S_AT	827	17463 AT	879	17935_AT
773 774	17063_S_AT	828	17465_AT	880	17956 I AT
775	17068_S_AT	829	17466_S_AT	881	17966_AT
776	17000_S_AT	830	17475 AT	882	17967 AT
		831	17479 AT	883	17970_I_AT
777	17075_S_AT	832	17482_S_AT	884	17978 S AT
778	17084_S_AT	833	17495_S_AT		20635_S_AT
779 700	17087_S_AT	834	17508 S_AT	885	17986_S_AT
780	17092_S_AT	835	17522_S_AT	886	17993 AT
781	17095_S_AT	836	17523_S_AT	887	18001 AT
782	17096_S_AT		17537_S_AT	888	18003 AT
783	17102_S_AT	837 838	17537_S_AT 17538 S_AT	889	18004 AT
784	17105_S_AT	838 830	17538_S_AT	890	18005 AT
785	17109_S_AT	839		891	18029 G AT
786	17110_S_AT	840	17546_S_AT	671	18030 I AT
787	17113_S_AT	041	18694_S_AT	892	18040 S AT
788	17115_S_AT	841	17557_S_AT	892 893	18045 AT
789	17116_S_AT	842	17560_S_AT	693	10042 WI

894	18064_R_AT	947	18580_AT	1001	18889_AT
895	18065_R_AT	948	13581_AT	1002	18892_S_AT
896	18074_AT	949	18584 AT	1003	18901 AT
897	18076_S_AT	950	18587_S_AT	1004	18911_AT
898	18077_AT	951	18588 AT	1005	18917_I AT
899	18081_AT	952	18591_AT	1006	18939_AT
900	18154_S_AT	953	18592_S_AT	1007	18947_I_AT
	18365_S_AT	954	18600_AT	1008	18950_AT
901	18165 AT	955	18601 S AT	1009	18951_S_AT
902	18174 AT	956	18607 S AT	1010	18954_AT
903	18176_AT	957	18611 AT	1011	18956_AT
904	18194 I AT	958	18616_AT	1012	18959_AT
905	18197_AT	959	18622 G AT	1013	18966 AT
906	18198_AT	960	18623_AT	1014	18974 AT
907	18213 AT	961	18628 AT	1015	18976 AT
908	18219_AT	962	18631_AT	1016	18980 AT
909	18221 AT	963	18635_AT	1017	18989_S_AT
910	18222 AT	964	18636_AT	1018	18994_AT
911	18226 S AT	965	18638 AT	1019	19030 AT
912	18232 AT	966	18652_AT	1020	19039_AT
913	18237_AT	967	18657_AT	1021	19049_AT
914	18241_AT	968	18659_AT	1022	19083_AT
915	18257 AT	969	18660_S_AT	1023	19115_AT
916	18258_S_AT	970	18667_AT	1024	19117_S_AT
917	18269_S_AT	971	18675_AT	1025	19122 AT
918	18274_S_AT	972	18684_AT	1026	19125 S AT
919	18275_AT	973	18686_S_AT	1027	19127_AT
920	18278_AT	974	18688_S_AT	1028	19130_AT
921	18282_AT	975	18693_S_AT	1029	19144_AT
922	18283_AT	976	18698_S_AT	1030	19157_S AT
923	18290_AT	977	18705_AT	1031	191 78_AT
924	18291_AT	978	18707_AT	1032	19190_G_AT
925	18306_AT	979	18708_AT	1033	19198_AT
926	18316_AT	980	18726_S_AT	1034	19202_AT
927	18317_AT	981	18727_AT	1035	19209_S_AT
928	18327_S_AT	982	18732_I_AT	1036	19211_AT
929	18337_S_AT	983	18736_AT	1037	19218_AT
930	18339_AT	984	18750_F_AT	1038	19222_AT
931	18347_S_AT	985	18754_AT	1039	19226_G_AT
932	18383_AT	986	18778_AT	1040	19229_AT
933	18390_AT	987	18806_S_AT	1041	19230_AT
934	18439_S_AT	988	18823_S_AT	1042	19232_S_AT
935	18465_S_AT	989	18829_AT	1043	19285_AT
936	18487_AT	990	18835_AT	1044	19326_AT
937	18508_S_AT	991	18844_AT	1045	19332_AT
938	18512_AT	992	18859_AT	1046	19346_AT
939	18543_AT	993	18864_AT	1047	19347_AT
940	18544_AT	994	18866_AT	1048	19362_AT
941	18552_AT	995	18880_AT	1049	19363_AT
942	18555_AT	996	18883_G_AT	1050	19364_AT
943	18556_AT	997	18885_AT	1051	19367_AT
944	18561_AT	998	18886_AT	1052	19373_AT
945	18567_AT	999	18887_AT	1053	19381_AT
946	18573_AT	1000	18888_AT	1054	19382_AT

151

1055	19384_AT	1109	19833_S_AT	1163	20093_I_AT
1056	19401_AT	1110	19834_AT	1164	20099_AT
1057	19406 AT	1111	19836 AT	1165	20100_AT
1058	19413_AT	1112	19841_AT	1166	20113_S_AT
1059	19416 AT	1113	19845 G_AT	1167	20117 AT
1060	19426 S_AT	1114	19854_AT	1168	20123_AT
1061	19439_AT	1115	19855_AT	1169	
	19441_S_AT	1116	19866 AT	1170	
1062		1117	19867_AT	1170	20125_AT 20150_AT
1063	19442_AT	1117 1118 1119	1900/_A1		
1064	19448_S_AT	1118	19870_S_AT	1172	20154_AT
1065	19454_AT	1119	19871_AT	1173	
1066	19462_S_AT	1120	19872_A1	1174	
1067	19464_AT	1121	19875_S_AT	1175	
1068	19470_AT	1122	19876_AT	1176	20178_S_AT
1069	19483_AT	1123	19879_S_AT	1177	20183_AT
1070	19489_S_AT	1124	19881_AT	1178	20188_AT
1071	19513_AT	1125	19897 S AT	1179	20189_AT
1072	19548_AT	1126	19903_AT	1180	20197_AT
1073	19562_AT	1127	19905 AT	1181	20210 G AT
1074	19563_S_AT	1127 1128 1129	19906 AT	1182	20213 AT
1075	19565_5_111 19567_AT	1129	19907 AT	1183	20229_AT
	19581_AT	1130	19910_AT	1184	
1076				1185	20255_AT
1077	19589_S_AT			1186	20253_AT 20257_AT
1078	19595_S_AT	1132	19920_S_AT		
1079	19606_AT	1133	19932_AT	1187	20262_AT
1080	19623_AT	1134	19939_AT	1188	20275_AT
1081	19624_AT	1135		1189	
1082	19627_S_AT	1136	19947_AT	1190	20282_S_AT
1083	19636_AT	1137	19951_AT	1191	20284_AT
1084	19652_AT	1138	19956_AT	1192	20293_AT
1085	19655_AT	1139	19962_AT	1193	
1086	19657_S_AT	1140	19963_AT	1194	
1087	19658_AT	1141	19969_AT	. 1195	20315_I_AT
1088	19660_AT	1142	19970_S_AT	1196	20330_S_AT
1089	19665_S_AT	1143	19971 AT	1197	
1090	19667_AT	1144	19972_AT	1198	20350_S_AT
1090	19671_AT	1145	19981 AT	1199	
1091	19677_AT	1146	19990_AT	1200	
	19677_AT 19686_AT	1147	19996 AT	1201	20360_AT
1093		1148	20003_S_AT	1202	20363_AT
1094	19689_AT	1148	20003_S_AT	1203	20369_S_AT
1095	19690_S_AT				
1096	19695_AT	1150	20013_AT	1204 1205	20378_G_AT 20383_AT
1097	19698_AT	1151	20018_AT		
1098	19700_S_AT	1152	20024_S_AT	1206	20384_AT
1099	19708_AT	1153	20027_AT	1207	
1100	19717_AT	1154	20045_AT	1208	
1101	19726_S_AT	1155	20047_AT	1209	
1102	19744_AT	1156	20048_AT	1210	
1103	19752_S_AT	1157	20050_AT	1211	
1104	19759_AT	1158	20051_AT	1212	
1105	19782_AT	1159	20058_AT	1213	20413_AT
1106	19803 S AT	1160	20067_AT	1214	20439_AT
1107	19828 AT	1161	20068 AT	1215	
1107	19831 I_AT	1162	20069 AT	1216	—
1100	17071_1_11	1.02	<u>-</u>		

1217	20445 AT
1218	20449_AT
1219	20449_AT 20456 AT
1220	20462_AT
1221	20471_AT
1222	20474_AT
1223	20495_S_AT
1224	20499_AT
1225	20501_AT
1226	20511_AT
1227	20515_S_AT
1228	20516_AT
1229	20517_AT
1230	20518_AT
1231	20520 S AT
1232	20536 S AT
1233	20538 S AT
1234	20539 S AT
1235	20558_AT
1236	20561 AT
1237	20567_AT
1238	20571 AT
1239	20582 S AT
1240	20582_5_711 20586 I AT
1240	20590_AT
1241	20590_AT 20592_AT
1242	20592_AT 20594_AT
1244	— —
1245	
1246	20616_AT
1247	20620_G_AT
1248	20637_AT
1249	20643_AT
1250	20649_AT
1251	20651_AT
1252	20654_S_AT
1253	20670_AT
1254	20684_AT
1255	20685_AT
1256	20693_AT
1257	20701_S_AT
1258	20704_AT
1259	20705_AT
1260	20715 AT
1261	20719 AT
	-

153 TABLE 4: 2X UP IN COLD, ONLY

				45000	45000
11997_at	12688_at	13274_s_at	14145_at	15083_at	15639_s_at
11998_at	12701_i_at	13278_f_at	14170_at	15084_at	15641_s_at
12018_at	12702_at	13279_s_at	14186_at	15096_at	15660_s_at
12031_at	12719_f_at	13285_s_at	14196_at	15101_s_at	15665_s_at
12047_at	12726_f_at	13288_s_at	14227_at	15105_s_at	15687_f_at
12051_at	12736_f_at	13292_s_at	14234_at	15112_s_at	15694_s_at
12053_at	12754_g_at	13297_s_at	14250_r_at	15115_f_at	15712_s_at
12060_at	12762_r_at	13299_s_at	14270_at	15116_f_at	15783_s_at
12072_at	12766_at	13332_at	14298_g_at	15122_s_at	15808_at
12074_at	12767_at	13351_at	14303_s_at	15126_s_at	15837_at
12102_at	12768_at	13352_at	14312_at	15131_s_at	15850_at
12112_at	12773_at	13422_at	14339_at	15132_s_at	15862_at
12117_at	12788_at	13435_at	14388_at	15137_s_at	15868_at
12130_at	12802_at	13461_s_at	14393_at	15144_s_at	15878_at
12145_s_at	12860_s_at	13467_at	14511_at	15148_s_at	15901_at
12151_at	12861_s_at	13488_at	14525_s_at	15153_s_at	15912_at
12163_at	12879_s_at	13495_s_at	14527_at	15159_s_at	15920_i_at
12175_at	12891_at	13539_i_at	14534_s_at	15160_s_at	15941_at
12175_at	12914_s_at	13542_at	14554_at	15166_s_at	15945_at
12197_at	12914_5_dt 12927_s_at	13575_at	14566_at	15174_f_at	15960_at
	12947_at	13577_s_at	14579_at	15197_s_at	15990_at
12219_at	12956_i_at	13617_at	14591_at	15270_at	16001_at
12256_at	12966_s_at	13634_s_at	14595_at	15319_at	16009_s_at
12269_s_at	12974_at	13656_at	14600_at	15325_at	16010_s_at
12307_at		13671_s_at	14631_s_at	15337_at	16034_at
12315_at	12987_s_at	13691_s_at	14635_s_at	15341_at	16036_i_at
12336_at	12994_s_at	13700_at	14679_s_at	15343_at	16039_s_at
12349_s_at	12998_at	13700_at	14691_at	15355_s_at	16040_at
12353_at	13002_at	13704_3_at	14697_g_at	15367_at	16042_s_at
12359_s_at	13018_at	13709_s_at 13715_at	14709_at	15379_at	16047_at
12390_at	13023_at		14711_s_at	15381_at	16049_s_at
12395_s_at	13046_g_at	13785_at	14711_3_at	15410_at	16051_s_at
12431_at	13054_at	13803_at	14731_s_at	15417_s_at	16062_s_at
12436_at	13086_r_at	13812_s_at	14797_s_at	15417_5_ct	16079_s_at
12443_s_at	13087_at	13825_s_at	14797_s_at 14809_at	15433_at	16087_s_at
12447_at	13100_at	13850_i_at		15451_at	16090_s_at
12452_at	13109_at	13904_s_at	14843_at	15451_at 15452_at	16117_s_at
12477_at	13119_at	13908_s_at	14847_at 14872_at	15453_s_at	16118_s_at
12503_at	13120_at	13927_at	14672_at 14886_at	15472_at	16137_s_at
12516_s_at	13128_at	13971_s_at	14896_at	15472_at 15489_at	16155_s_at
12532_at	13134_s_at	13985_s_at	14897_at	15490_at	16162_s_at
12544_at	13140_at	14013_at	_	15490_at 15503_at	16184_at
12561_at	13143_at	14019_at	14900_at		16192_at
12602_at	13167_at	14021_r_at	14956_s_at	15510_r_at 15517 s_at	16222_at
12610_at	13172_s_at	14028_at	14958_at		16244_at
12631_at	13178_at	14048_at	14965_at	15518_at	16250_at
12647_s_at		14058_at	14984_s_at	15544_at	16260_at
12650_at	13181_at	14059_at	15004_at	15588_s_at	
12656_at	13187_i_at	14064_at	15010_at	15600_s_at	16286_at 16296_at
12674_at	13209_s_at		15036_r_at	15605_s_at	-
12675_s_at			15040_g_at		
12676_s_at		14106_at	15046_s_at		
12681_s_at				15616_s_at	
12686_s_at	: 13260_s_at	14140_at	15073_at	15633_s_at	16411_s_at

154
TABLE 4 (cont): 2X UP IN COLD, ONLY

		(00111). 221	or in Cold, (JNL I	
16442_s_at	17077_s_at	17978_s_at	18885_at	19689_at	20412_s_at
16465_at	17102_s_at	17999_at	18887_at	19698_at	20413_at
16466_s_at	17109_s_at	18001_at	18888_at	197Ó0_s_at	20432_at
16468_at	1 7113_s_at	18004_at	18889_at	19707_s_at	20433_at
16486_at	17123_s_at	18012_s_at	18901_at	19708_at	20456_at
16487_at	17128_s_at	18040_s_at	18907_s_at	19713_at	20462_at
16488_at	17129_s_at	18176_at	18917_i_at	19718_at	20471_at
16489_at	17132_at	18194_i_at	18939_at	19744_at	20511_at
16496_s_at	17166_at	18197_at	18947_i_at	19836_at	20515_s_at
16499_at	17206_at	18198_at	18949_at	19839_at	20517 at
16511_at	17237_at	18213_at	18954_at	19840_s_at	20518_at
16517_at	17300_at	18219_at	18959_at	19845 <u>g</u> at	20529_at
16538_s_at	17319_at	18222_at	18974_at	19854_at	20536_s_at
16554_s_at	17322_at	18231_at	18976_at	19855_at	20538_s_at
16571_s_at	17332_s_at	18232_at	18980_at	19860_at	20539_s_at
16576_f_at	17381_at	18241_at	18989_s_at	19866_at	20576_at
16595_s_at	17388_at	18269_s_at	19019 i at	19871_at	20582_s_at
16605_s_at	17392_s_at	18272_at	19049_at	19875_s_at	20586_i_at
16610_s_at	17408_at	18282_at	19083_at	19879_s_at	20608_s_at
16620_s_at	17424_at	18298_at	19130_at	19881_at	20649 at
16621_s_at	17429_s_at	18316_at	19156_s_at	19913_at	20651_at
16635_s_at	17457_at	18317_at	19178_at	19939_at	20684_at
16636_s_at	17458_at	18331_s_at	19190 <u>g</u> at	19945_at	20685_at
16638_s_at	17466_s_at	18347_s_at	19199_at	19947_at	20699_at
16650_s_at	17477_s_at	18383_at	19202_at	19951_at	20705_at
16672_at	17482_s_at	18390_at	19209_s_at	19956_at	20715_at
16673_at	17538_s_at	18455_at	19211_at	19971_at	_
16687_s_at	17546_s_at	18465_s_at	19218_at	19976_at	
16747_at	17562_at	18544_at	19229_at	19998_at	
16753_at	17581_g_at	18555_at	19322_at	20003_s_at	
16768_at	17627_at	18556_at	19326_at	20015_at	•
16805_s_at	17631_at	18560_at	19359_s_at	20027_at	
16807_at	17632_at	18561_at	19367_at	20051_at	
16845_at	17645_s_at	18571_at	19384_at	20068_at	
16847_at	17672_at	18588_at	19389_at	20093_i_at	
16896_s_at	17675_at	18597_at	19397_at	20117_at	
16899_at	17677_at	18601_s_at	19406_at	20150_at	
16902_at	17693_at	18611_at	19426_s_at		
16911_at	17732_at	18623_at	19441_s_at	20165_at	
16914_s_at	17743_at	18635_at	19442_at	20257_at	
16943_s_at	17748_at	18659_at	19470_at	20262_at	
16956_at	17775_at	18660_s_at	19489_s_at	20275_at	
16996_s_at	17782_at	18673_at	19562_at	20282_s_at	
17010_s_at	17841_at	18694_s_at	19577_at	20288_g_at	
17016_s_at	17852_g_at	18705_at	19589_s_at	20293_at	
17032_s_at	17900_s_at	18708_at	19597_s_at	20315_i_at	
17033_s_at	17901_at	18738_f_at	19611_s_at	20330_s_at	
17043_s_at	17911_at	18750_f_at	19624_at	20360_at	
17050_s_at	17921_s_at	18778_at	19657_s_at	20363_at	
17055_s_at	17922_at	18829_at 18835_at	19667_at	20369_s_at	
17068_s_at	17933_at	_	19671_at	20384_at	
17071_s_at 17075_s_at	17967_at	18866_at 18875_s_at	19677_at	20393_at	
11015_s_at	17970_i_at	100/3_8_at	19686_at	20396_at	

155
TABLE 5: 2X UP COLD 3 HR, ONLY

	I ABLE 5:	2X UP COLD 3	HR, UNLY	
12117_at	13671_s_at	15453_s_at	17237_at	19624_at
12145_s_at	13691_s_at	15489_at	17319_at	19657_s_at
12151_at	13785_at	15518_at	17392_s_at	19667_at
12163_at	13803_at	15588_s_at	17429_s_at	19845_g_at
12187_at	13825_s_at	15613_s_at	17477_s_at	19855_at
12256_at	13904_s_at	15614_s_at	17538_s_at	19866_at
12315_at	14013_at	15616_s_at	17581_g_at	19945_at
12349_s_at	14021_r_at	15639_s_at	17627_at	19951_at
12353_at	14028_at	15641_s_at	17672_at	19998_at
12359_s_at	14064_at	15660_s_at	17693_at	20003_s_at
12544_at	14126_s_at	15687_f_at	17782_at	20015_at
12602_at	14145_at	15694_s_at	17841_at	20051_at
12610_at	14170_at	15862_at	17900_s_at	20093_i_at
12676_s_at	14196_at	15868_at	17933_at	20117_at
12686_s_at	14250_r_at	15878_at	17978_s_at	20288_g_at
12701_i_at	14298_g_at	15901_at	18001_at	20360_at
12702_at	14303_s_at	16034_at	18012_s_at	20369_s_at
12719_f_at	14339_at	16039_s_at	18198_at	20384_at
12736_f_at	14527_at	16040_at	18219_at	20462_at
12754_g_at	14534_s_at	16042_s_at	18241_at	20471_at
12766_at	14554_at	16047_at	18269_s_at	20515_s_at
12767 at	14595_at	16062_s_at	18272_at	20538_s_at
12768_at	14635_s_at	16087_s_at	18282_at	20576_at
12773_at	14679_s_at	16117_s_at	18298_at	20608_s_at
12788_at	14691_at	16118_s_at	18383_at	20651_at
12879_s_at	14697 <u>g</u> at	16162_s_at	18556_at	20685_at
12891_at	14709_at	16184_at	18588_at	20705_at
12947_at	14728_s_at	16222_at	18601_s_at	
12966_s_at	14809_at	16250_at	18611_at	
12974_at	14896_at	16411_s_at	18694_s_at	
12994_s_at	14965_at	16442_s_at	18708_at	
13002_at	14984_s_at	16465_at	18738_f_at	
13100_at	15046_s_at	16486_at	18778_at	
13140_at	15083_at	16488_at	18829_at	
13167_at	15096_at	16489_at	18835_at	
13172_s_at	15105_s_at	16517_at	18866_at	
13179_at	15115_f_at	16571_s_at	18875_s_at	
13187 <u>i</u> at	15116_f_at	16605_s_at	18888_at	
13219_s_at	15122_s_at	16610_s_at	18907_s_at	
13260 s at	15126_s_at	16620_s_at	18917_i_at	
13278_f_at	15131_s_at	16636_s_át	18939_at	
13279_s_at	15132_s_at	16650_s_at	18974_at	
13285_s_at	15137_s_at	16805_s_at	19190_g_at	
13288_s_at	15153_s_at	16845_at	19199_at	
13292_s_at	15159_s_at	16899_at	19202_at	
13297_s_at	15160_s_at	16914_s_at	19211_at	
13351_at	15197_s_at	16943_s_at	19384_at	
13352_at	15355_s_at	16996_s_at	19406_at	
13435_at	15379_at	17010_s_at	19426_s_at	
13467_at	15417_s_at	17043_s_at	19442_at	
13488_at	15422_at	17068_s_at	19470_at	
13495_s_at	15451_at	17109_s_at	19577_at	
13656_at	15452_at	17128_s_at	19597_s_at	
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156
TABLE 6: 2X DOWN COLD, ONLY

44004	40450	40004			
11991_g_at	12450_s_at	12881_s_at	13151_g_at	13621_g_at	14056_at
11992_at	12474_at	12889_s_at	13160_at	13623_r_at	14057_at
12001_at	12491_at	12901_s_at	13161_at	13629_s_at	14061_at
12006_s_at	12497_at	12902_at	13162_at	13631_at	14067_at
12007_at	12500_s_at	12904_s_at	13165_at	13635_at	14068_s_at
12009_at	12515_at	12905_s_at	13166_at	13646_at	14072_at
12022_at	12521_at	12908_s_at	13185_at	13650_at	14074_at
12023_s_at	12523_at	12910_s_at	13193_s_at	13652_at	14075_at
12026_at	12526_at	12916_s_at	13211_s_at	13653_at	14083_at
12037_at	12527_at	12923_s_at	13213_s_at	13655 at	14084_at
12052_at	12534_g_at	12926_s_at	13219_s_at	13657_at	14089_at
12125_at	12549_s_at	12931_s_at	13233_at	13666_s_at	14095_s_at
12143_at	12550_s_at	12937_r_at	 13236_s_at	13667_s_at	14096_at
12149_at	12552_at	12941_g_at	13239_s_at	13669_s_at	14100_at
12156_at	12555_s_at	12942_at	13241_s_at	13670_s_at	14101_at
12166_i_at	12556_at	12949_at	13254_s_at	13672_s_at	14103_at
12167_at	12575_s_at	12953_at	13266_s_at	13678_s_at	14121_at
12169 i at	12576_s_at	12958_at	13273_s_at	13679_s_at	14129_s_at
12176_at	12581_s_at	12959_at	13275_f_at	13688_s_at	14133_s_at
12179_at	12587_at	12966_s_at	13276_s_at	13690_s_at	14143_at
12175_at	12597_at	12975_at		13691_s_at	
	12606 at	12983_at	13278_f_at 13280_s_at	– –	14148_at
12198_at 12200 at		12984_at	13285 s at	13692_s_at 13714_at	14162_at
-	12609_at		- -	_	14194_at
12202_at	12646_at	13002_at	13296_s_at	13724_at	14208_at
12212_at	12649_at	13009_i_at	13347_at	13748_at	14217_at
12214_g_at	12653_at	13011_at	13355_at	13751_at	14223_at
12224_at	12661_at	13014_at	13361_at	13759_at	14235_at
12226_at	12666_at	13024_at	13404_at	13767_at	14236_at
12233_at	12678_i_at	13034_s_at	13406_at	13789_at	14251_f_at
12240_at	12705_f_at	13041_s_at	13459_at	13876_at	14252_f_at
12253_g_at	12736_f_at	13048_s_at	13460_at	13880_s_at	14285_at
12270_at	12737_f_at	13067_s_at	13464_at	13883_at	14301_s_at
12278_at	12758_at	13068_at	13523_s_at	13887_s_at	14316_at
12284_at	12760_g_at	13073_s_at	13529_at	13895_at	14366_at
12287_s_at	12764_f_at	13078_s_at	13541_at	13906_s_at	14369_at
12293_at	12765_at	13079_at	13545_s_at	13919_at	14392_g_at
12294_s_at	12772_at	13081_s_at	13550_at	13923_at	14421_at
12300_at	12776_at	13083_at	13552_at	13932_at	14431_at
12312_at	12784_at	13090_at	13556_i_at	13935_at	14436_at
12315_at	12793_at	13092_s_at	13561_at	13940_at	14448_at
12324_i_at	12794_at	13098_at	13563_s_at	13949_s_at	14450_at
12331_s_at	12795_at	13103_at	13567_at	13954 <u>g</u> at	14454_at
12344_at	12809_g_at	13105_at	13568_at	13973_at	14459_at
12348_at	12812_at	13107_s_at	13571_at	13983_at	14478_at
12353_at	12815_at	13108_at	13576_at	13989_at	14482_at
12372_at	12816_at	13114_at	13583_at	14010_at	14485_at
12374_i_at	12818_at	13118_f_at	13598_at	14014_at	14492_s_at
12405_at	12824_s_at	13123_at	13601_at	14015_s_at	14505_at
12408_at	12828_s_at	13124_at	13604_at	14016_s_at	14510_at
12410_g_at	12842_s_at	13133_s_at	13613_at	14025_s_at	14517_at
12419_at	12846_s_at	13135_s_at	13616_s_at	14027_at	14519_at
12427_at	12858_at	13139_at	13618_s_at	14030_at	14534_s_at
12438_at	12869_s_at	13146_s_at	13619_at	14044_at	14538_r_at
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157
TABLE 6 (cont): 2X DOWN COLD, ONLY

	IADLE	(cour). ZA DC	WIN COLD, O	IND A	
14558_at	15047_at	15512_at	15940_at	16357_at	16894_at
14559 s at	15054_at	15514_at	15948_s_at	16380_at	16899_at
14572_at	15056 at	15515_r_at	15956_at	16382_at	16920_at
14584_at	15058_s_at	15529_at	15976_at	16385_s_at	16921_at
14587_at	15063_at	15534_f_at	15978_at	16393_s_at	16924_s_at
14595_at	15066_at	15538_at	15986_s_at	16402_s at	16926_s_at
14602_at	15081_at	15541_at	16004_s_at	16417_s_at	16931_s_at
14603_at	15091_at	15543_at	16015_at	16442_s_at	16934_s_at
14605_at	15097_s_at	15551_at	16017_at	16446_at	16937_at
14620_s_at	15102_s_at	15574_s_at	16019_at	16448_g_at	16938_at
14626_s_at	15107_s_at	15576_s_at	16024_at	16453_s_at	16942_at
14630_s_at	15118_s_at	15577_s_at	16031_at	16457_s_at	
14637_s_at	15127_s_at	15578_s_at	16055_s_at	16470_s_at	16950_s_at
14640_s_at	15130_s_at	15581_s_at	16059_s_at	16481_s_at	16952_s_at
14642_f_at	15132_s_at	15583_s_at	16065_s_at	16510_at	16962_s_at
	15133_s_at	15591_s_at	16066_s_at	16512_s_at	16965_s_at
14650_s_at	15139_s_at	15595_s_at	16069_s_at	16514_at	16970_s_at
14654_s_at	15143_s_at	15602_f_at	16074_s_at	16516_at	16977_at
14667_s_at		15606_s_at	16076_s_at	16523_s_at	16984_at
14668_s_at	15146_s_at 15150_s_at	15608_s_at	16077_s_at	16526 at	16989_at
14669_s_at		15616_s_at	16084_s_at	16528_at	16993_at
14672_s_at	15161_s_at	15618_s_at	16089_s_at	16531_s_at	16997 at
14673_s_at	15162_s_at	15620_s_at	16102_s_at	16535_s_at	17000_at
14675_s_at	15167_s_at 15170_s_at	15627_s_at	16103_s_at	16537_s_at	17005_at
14679_s_at			16105_s_at	16543_s_at	17000_ut 17010_s_at
14681_g_at	15171_s_at	15634_s_at	16108_s_at	16544_s_at	17010_5_at
14682_i_at	15178_s_at	15637_s_at			17031_s_at
14689_at	15182_s_at	15642_s_at	16112_s_at	16550_s_at 16559_s_at	17040_s_at
14701_s_at	15185_s_at	15643_s_at	16117_s_at		17053_s_at
14703_at	15188_s_at	15646_s_at	16118_s_at	16567_s_at	17056_s_at
14712_s_at	15193_s_at	15651_f_at	16125_s_at 16127_s_at	16577_s_at 16579_s_at	17063_s_at
14713_s_at	15196_s_at	15652_s_at 15667_s_at	16134_s_at	16580_s_at	17003_3_at
14715_s_at	15201_f_at		16136_s_at	16583_s_at	17074_s_at
14734_s_at	15206_s_at	15668_s_at		16584_s_at	17074_3_at
14781_at	15207_s_at	15670_s_at	16138_s_at 16140_s_at	16593_s_at	17004_3_at
14800_at	15213_s_at	15671_s_at	16143_s_at	16598_s_at	17005_3_at
14856_s_at	15243_at	15675_s_at		16603_s_at	17007_3_at
14882_at	15256_at	15679_s_at	16144_s_at 16145_s_at	16604 s at	17092_3_at
14908_at	15348_at	15685_s_at 15688_s_at	16148_s_at	16611_s_at	17096_s_at
14912_at	15350_at			16614_s_at	17097_s_at
14914_at	15372_at	15689_s_at	16151_s_at	16617_s_at	171037_3_at
14924_at	15383_at	15692_s_at	16158_f_at 16160_f_at	16618_s_at	17105_s_at
14942_at	15384_at	15775_at			17105_s_at
14945_at	15385_at	15776_at	16168_s_at	16620_s_at	17110_s_at 17115_s_at
14955_at	15387_at	15845_at	16169_s_at	16631_s_at	17115_s_at
14957_s_at	15406_at	15848_at	16171_s_at	16634_s_at	17110_s_at
14974_at	15423_at	15858_at	16172_s_at	16639_s_at	17119_s_at
14980_at	15431_at	15866_s_at	16222_at	16640_s_at	
14981_at	15464_at	15894_at	16232_s_at	16652_s_at	17207_at
14995_at	15468_at	15900_at	16242_at	16654_at	17215_at
15009_at	15471_at	15901_at	16288_at	16777_at	17247_at
15018_at	15475_s_at	15902_at	16294_s_at	16784_at	17254_at
15024_at	15485_at	15913_at	16325_at	16811_at	17286_at
15026_at	15505_at	15928_at	16346_s_at	16893_at	17288_s_at

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158
TABLE 6 (cont): 2X DOWN COLD, ONLY

17292_at	17910_at	18337_s_at	18823_s_at	19382_at	19897_s_at
17303_s_at	17916_at	18339_at	18844_at	19401_at	
17305_at	17917_s_at	18365 s at	18859_at	19402_at	19903_at
17318_at	17918_at	18402_at	18864_at		19905_at
17323_at	17926_s_at			19406_at	19906_at
17325_at	17920_s_at	18439_s_at	18880_at	19413_at	19907_at
		18487_at	18883_g_at	19416_at	19910_at
17405_at	17956_i_at	18508_s_at	18886_at	19429_at	19920_s_at
17415_at	17961_at	18512_at	18892_s_at	19432_s_at	19932_at
17418_s_at	17966_at	18543_at	18909_s_at	19439_at	19951_at
17420_at	17978_s_at	18552_at	18911_at	19448_s_at	19962_at
17423_s_at	17986_s_at	18567_at	18913_s_at	19454_at	19963_at
17426_at	17993_at	18573_at	18916_s_at	19462_s_at	19969_at
17427_at	17998_s_at	18580_at	18921_g_at	19464_at	19970_s_at
17430_s_at	18003_at	18581_at	18950_at	19469_at	19972 <u>`at</u>
17431_at	18005_at	18584_at	18951_s_at	19483_at	19981_at
17439_g_at	18010_s_at	18587_s_at	18956_at	19484_s_at	19990_at
17442_i_at	18013_r_at	18590_at	18966_at	19513_at	19996_at
17449_s_at	18023_s_at	18591_at	18972_at	19548_at	19999_s_at
17462_s_at	18029_g_at	18592_s_at	18994_at	19563_s_at	20009_s_at
17463_at	18030_i_at	18600_at	19030_at	19567_at	20013_at
17465_at	18045_at	18601_s_at	19039_at	19581_at	20017_at
17475_at	18046_s_at	18607_s_at	19068_i_at	19595_s_at	20018_at
17479_at	18059_i_at	18610_s_at	19108_at	19606_at	20010_at
17495_s_at	18064_r_at	18611_at	19115_at	19623_at	20024_3_at 20045_at
17508_s_at	18065_r_at	18616_at	19117_s_at	19627_s_at	20045_at
17522_s_at	18074_at	18622_g_at	19122_at	19636_at	_
17523_s_at	18076_s_at	18628_at	19125_s_at	19641_at	20048_at
17529_s_at	18077_at	18631_at	19127_at	19652_at	20050_at
17537_s_at	18078_at	18636_at	19135_at	19655_at	20051_at
17539_s_at	18081_at	18638_at	19144_at	19658_at	20058_at
17543_s_at	18083_r_at	18652_at	19157_s_at		20067_at
17555_s_at	18085_r_at	18657_at		19660_at	20069_at
17557_s_at	18091_at	18667_at	19158_at	19665_s_at	20099_at
17560_s_at	18154_s_at	_	19177_at	19667_at	20100_at
	18165_at	18675_at	19192_at	19690_s_at	20113_s_at
17564_s_at	_	18684_at	19198_at	19695_at	20123_at
17565_s_at	18174_at	18686_s_at	19222_at	19717_at	20127_s_at
17568_at	18221_at	18688_s_at	19226_g_at	19726_s_at	20129_at
17570_g_at	18226_s_at	18693_s_at	19227_at	19752_s_at	20133_i_at
17573_at	18230_at	18698_s_at	19230_at	19759_at	20152_at
17577_g_at	18237_at	18706_s_at	19232_s_at	19782_at	20154_at
17578_at	18255_at	18707_at	19263_at	19789_s_at	20173_at
17579_s_at	18257_at	18726_s_at	19285_at	19803_s_at	20178_s_at
17585_s_at	18258_s_at	18727_at	19332_at	19828_at	20183_at
17596_at	18274_s_at	18732_i_at	19346_at	19831_i_at	20188_at
17600_s_at	18275_at	18735_s_at	19347_at	19833_s_at	20189_at
17823_s_at	18278_at	18736_at	19361_s_at	19834_at	20197_at
17840_s_at	18283_at	18738_f_at	19362_at	19835_at	20200_at
17849_s_at	18290_at	18747_f_at	19363_at	19841_at	20210_g_at
17857_at	18291_at	18754_at	19364_at	19867_at	20213_at
17865_at	18299_s_at	18782_at	19365_s_at	19870_s_at	20229_at
17882_at	18300_at	18789_at	19373_at	19871_at	20232_s_at
17885_at	18306_at	18806_s_at	19379_at	19872_at	20255_at
17902_s_at	18327_s_at	18814_at	19381_at	19876_at	20278_s_at
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159
TABLE 6 (cont): 2X DOWN COLD, ONLY

20284_at 20693_at 20288_g_at 20701_s_at 20294_at 20704_at 20707 s at 20312 s at 20331_at 20719_at 20335_s_at 20350_s_at 20354 s at 20355_at 20369_s_at 20378_g_at 20383 at 20385 s_at 20387_at 20399 at 20409_g_at 20420_at 20429_s_at 20439_at 20440 at 20444_at 20445 at 20449 at 20474_at 20480_s_at 20495_s_at 20499_at 20501_at 20516_at 20520_s_at 20530_s_at 20538_s_at 20547_at 20558 at 20561_at 20567_at 20571_at 20590_at 20592_at 20594_at 20608_s_at 20612_s_at 20616_at 20620_g_at 20635_s_at 20637_at 20643_at 20654_s_at 20670_at 20674_s_at 20684_at

20685_at 20689_s_at

TABLE 7:

SALINE STRESS RESPONSIVE SEQUENCES

2227 12011_S_AT 2275 13993_S_AT 2324 15969 2228 12153_AT 2276 14000_AT 2325 15969 2229 12180_AT 2277 14003_AT 2326 15979	NO:
2227 12011_S_AT 2275 13993_S_AT 2324 15969 2228 12153_AT 2276 14000_AT 2325 15969 2229 12180_AT 2277 14003_AT 2326 15979	5_AT
2228 12153_AT	
2229 12180_AT 2277 14003_AT 2326 15975	
	S_S_AT
2230 12186_AT 2278 14032_AT 2327 15995	S_S_AT
	S_S_AT
	SAT
	8_AT
	O_AT
	S AT
	7_S_AT
	2_S_AT
	8_F_AT
- -	3 AT
	4_AT
2241 12704 F AT 2289 14596 AT 2337 1641	3 S AT
	4 AT
	6 AT
	6 AT
	5_AT
2246 12761_S_AT 2294 14952_AT 2342 1650	2 AT
	8_S_AT
	8_S_AT
	2_S_AT
2250 13003 S AT 2298 15042 AT 2346 1658	9_S_AT
	4_S_AT
	3 S AT
	SAT
	8_AT
	O AT
	37_S_AT
	S AT
- ·	89_S_AT
	73_AT
2258 13253 F AT 2307 15208 S AT 2356 1727	78_AT
	33_AT
	57_AT
	66_AT
	95_S_AT
2263 13429_AT 2312 15465_AT 2361 1774	44 S AT
	58_AT
	64 AT
	68_AT
	76_AT
	94 AT
	42 S AT
	08_R_AT
	27_AT
	53_S_AT
	62 AT
	82_AT

2373	18121 S_AT	2426	20648_S_AT
2374	18240 S AT	2427	20668_AT
2375	18248 S AT		. —
2376	18264_AT		
2377	18276_AT		
2378	18287 AT		
2379	18310 AT		
2380	18367 S AT		
2381	18506 AT		
2382	18605_S_AT		
2383	18618 S AT		
2384	18626 AT		
2385	18666 S AT		
2386	18834 AT		
2387	18847_AT		
2388	18896_AT		
2389	18899 S AT		
2390	18973 AT		
2391			
2392			
2393	18998_S_AT		
2394	19065 AT		
2395	19119 I AT		
	19121 AT		
2396	19207_AT		
2397	19220_AT		
2398	19284 AT		
2399	19315_AT		
2400			
2401	19403_S_AT		
2402	19437_S_AT		
2403	19502_AT		
2404	19609_AT		
2405	19645_AT		
2406	19742_AT		
2407	19863_AT		
2408	19873_AT		
2409	19891_AT		
2410	20004_S_AT		
2411	20053_AT		
2412	20138_AT		
2413	20193_AT		
2414	20199_AT		
2415	20220_AT		
2416	20239_G_AT		
2417	20297_AT		
2418	20324_S_AT		
2419	20353_AT		
2420	20362_AT		
2421	20389_AT		
2422	20546_AT		
2423	20600_AT		
2424			
2425	20629_AT		

162 TABLE 8: 2X UP IN SALT, ONLY

			,	
12037_at	14570_at	16190_at	18506_at	20648_s_at
12137_at	_	16196_at	18605_s_at	20678_at
12153 at	14596_at	16273_at	18626_at	20686_at
12186_at	14646_s_at	16314_at	18666_s_at	20707_s_at
12216_at	14662 f at	16413_s_at	18747_f_at	20107_0_at
12268_at	14668_s_at	16414_at	18782_at	
12449_s_at	14729_s_at	16417_s_at	18834_at	
12470_at	14874_at	16455_at	18847_at	
12476_at	14888_at	16548_s_at	18913_s_at	
12476_at	14918 at	16582_s_at	18973_at	
12493_g_at	14952_at	16589_s_at	18988_at	
12609_at	14959_at	16594_s_at	18998_s_at	
12685_at	14986_at	16613_s_at	19065_at	
12005_at 12704_f_at	15006_at	16651_s_at	19068_i_at	
12704_1_at	15042_at	16668_at		
	_	_	19123_at	
12734_f_at	15047_at	16690_g_at	19177_at	
12739_s_at 12750_s_at	15062_at 15063_at	16762_at	19220_at	
	15108_s_at	16820_at	19284_at	
12761_s_at		16873_i_at	19288_at	
12819_at	15133_s_at	16987_s_at	19315_at	
12845_s_at	15147_s_at	-	19437_s_at	
12946_at	15170_s_at	16995_at	19484_s_at	
13142_at	15175_s_at	17039_s_at	19502_at	
13198_i_at	15182_s_at	17040_s_at	19503_at	
13229_s_at	15190_s_at	17400_s_at	19592_at	
13275_f_at	15192_s_at	17425_s_at	19645_at	
13344_s_at	15324_at	17433_at	19742_at	
13370_at	15392_at	17467_at	19835_at	
13408_s_at	15424_at	17490_s_at	19873_at	
13464_at	15467_at	17529_s_at	19891_at	
13472_at	15497_s_at	17543_s_at	19992_at	
13526_at	15581_s_at	17566_at	20004_s_at	
13614_at	15623_f_at	17595_s_at	20053_at	
13652_at	15636_s_at		20133_i_at	
13679_s_at	15646_s_at	_	20138_at	-
13751_at	15670_s_at	17855_at	20190_at	
13918_at	15770_at	17864_at	20199_at	
13919_at	15775_at	17876_at	20200_at	
13944_at	15778_at	18008_r_at	20297_at	
13964_at	15792_at	18013_r_at	20324_s_at	
13987_s_at	15855_at	18024_s_at	20335_s_at	
13993_s_at	15891_at	18027_at	20353_at	
14000_at	15909_at	18053_s_at	20362_at	
14032_at	15923_at	18078_at	20385_s_at	
14043_at	15969_s_at	18082_at	20389_at	
14052_at	15975_s_at	18090_s_at	20402_s_at	
14067_at	15995_s_at	18091_at	20450_at	
14070_at	15998_s_at	18121_s_at	20468_at	
14269_at	16017_at	18264_at	20489_at	
14285_at	16050_at	18276_at	20546_at	
14427_at	16067_s_at	18300_at	20569_s_at	
14501_at	16072_s_at	18367_s_at	20600_at	•
14540_at	16165_s_at	18471_at	20623_at	

PCT/US2001/026685

163 TABLE 9: 2X UP SALT, 3 HR ONLY

	1.1521	SOL DIE OF SAL	
12037_at	15042_at	16987_s_at 16989_at 17039_s_at 17040_s_at 17425_s_at	20004_s_at
12137_at	15047_at	16989_at	20053_at
12153_at	15062_at	17039_s_at	20133_i_at
12186_at	15063 at	17040_s_at	20138_at
12216_at	15108_s_at	17425_s_at	20190_at
12268 at	15133 s at	17433 at	20199 at
12470 at	15147 s at	17490 s at	20200 at
12476_at	15170_s_at	17543 s at	20220_at
12487 at	15175_s_at	17744 s at	20362_at
12493 g at	15182_s_at	17864 at	20385_s_at
12609 at	15190_s_at	17876 at	20389_at
	15192_s_at		
12704 f at	15324_at	18013 r at	20546_at
	15424_at		
	15467_at		
	15497_s_at		
12750_s_at	15623 f at	18078 at	20707_s_at
12730_5_at	15623_f_at	10070_at	20101_3_at
12019_at	15636_s_at 15646_s_at 15670_s_at 15770_at 15775_at 15778_at	10002_at	
12940_at	15040_5_at	10090_5_at	
13142_at	150/0_S_at	10091_at	
13229_S_at	15/70_at	10121_S_at	
132/5_1_at	15//5_at	10204_at	
13370_at	15//8_at	18276_at	
13408_s_at 13464_at	15/92_at	18367_s_at	
13464_at	15855_at	18471_at	
	15891_at	10000_at	
	15909_at	18605_S_at	
	15923_at	18020_at	
	15969_s_at	10000_S_at	
13918_at	15975_s_at	18/4/_1_at	
13919_at	15995_s_at	18782_at	
13944_at	15998_s_at 16017_at 16050_at	18834_at	
13987_s_at	16017_at	18847_at	
13993_s_at	16050_at	18913_s_at	
14000_at	16050_at 16067_s_at 16072_s_at	18973_at	
14032_at	160/2_s_at	18988_at	
	16165_s_at		
14052_at	16196_at	19068_i_at	
14067_at	16273_at	19123_at	
14269_at	16314_at	19177_at	
14285_at	16414_at	19220_at	
14501_at	16417_s_at	19288_at	
14540_at	16455_at	19315_at	
14570_at	16548_s_at	19437_s_at	
14596_at	16582_s_at	19484_s_at	
14668_s_at	16589_s_at	19502_at	
14729_s_at	16594_s_at	19503_at	
14888_at	16613_s_at	19592_at	
14918_at	16651_s_at	19645_at	
14952_at	16668_at	19742_at	
14959_at	16762_at	19835_at	
14986_at	16820_at	19873_at	
15006_at	16873_i_at	19891_at	
_			

164
TABLE 10: 2X DOWN SALT, ONLY

```
12011 s at
            16046 s at
                         20239 g at
12180 at
            16060_s_at
                         20433_at
12265 at
            16088 f at
                         20629 at
12335_at
            16150_s_at
                         20668_at
12479_at
            16166_s_at
12562 at
            16316_at
12656_at
            16340_at
12813 at
            16367_i_at
13003_s_at
            16426_at
13052 s at
            16427 at
13094_at
            16436_at
13178_at
            16489_at
13253_f_at
            16502_at
13387 at
            16568 s_at
13429 at
            16638 s at
13472 at
            16646 s at
13569 at
            17273 at
13686_s_at
            17278_at
13718 at
            17567_at
13719_at
            17868 at
13902_at
            17880_s_at
14003_at
            17894_at
            17901_at
14144_at
14267_at
            17942_s_at
14418 at
            17960 at
14544 at
            17999_at
            18062_at
14546_s_at
14636_s_at
            18240 s_at
14951_at
            18248_s_at
14956_s_at
            18267_at
14979_at
            18279_s_at
14990_at
            18287_at
15040 g at
            18310 at
15049_at
            18351_s_at
            18455 at
15115 f at
15137_s_at
            18560 at
15148_s_at
            18571_at
15176_s_at
            18618 s at
15208_s_at
            .18896_at
15371 at
            18899 s at
15453_s_at
            18967_s_at
            18983 s at
15463 at
15465_at
            19119 i at
15589_s_at
            19121_at
15663 s at
            19207 at
15860_at
            19348_at
15898 at
            19403 s at
15931_at
            19609 at
15965_at
            19742_at
15970_s_at
            19826_at
            19863_at
15972_s_at
16005_s_at
            19883 at
```

16028_at

20193 at

TABLE 11 OSMOTIC STRESS RESPONSIVE SEQUENCES

250 4					
	FFYMETRIX		FFYMETRIX		FFYMETRIX
ID NO:	ID NO:	ID NO:	ID NO:	ID NO:	ID NO:
2428	11994_AT	2475	13995_AT	2523	17037_S_AT
2429	12028_AT	2476	14062_AT	2524	17054_S_AT
2430	12033_AT	2477	14118_I_AT	2525	17257_S_AT
2431	12039_AT	2478	14141_AT		18725_S_AT
2432	12068_AT	2479	14310_AT	2526	17270_AT
2433	12096_AT	2480	14354_AT	2527	17275_I_AT
2434	12110_AT	2481	14476_AT	2528	17376_AT
2435	12114_AT	2482	14513_S_AT	2529	17378_AT
2436	12135_AT	2483	14568_S_AT	2530	17468_AT
2437	12139_AT	2484	14604_AT	2531	17481_AT
2438	12189_AT	2485	14634_S_AT	2532	17511_S_AT
2439	12191_AT	2486	14660_S_AT	2533	17519_S_AT
2440	12211_AT	2487	14666_S_AT	2534	17815_S_AT
2441	12223_S_AT	2488	14686_S_AT	2535	17897_AT
2442	12366_S_AT		17464_AT	2536	17923_S_AT
	12869_S_AT	2489	14726_S_AT	2537	17934_AT
2443	12381_AT	2490	14848_S_AT	2538	17937_S_AT
2444	12406_S_AT	2491	14873_AT	2539	17944_AT
2445	12412_AT	2492	14883_AT	2540	17958_AT
2446	12453_AT	2493	15082_AT	2541	18216_AT
2447	12571_S_AT	2494	15121_S_AT	2542	18227_AT
2448	12662_AT		16014_S_AT	2543	18284_AT
2449	12746_I_AT	2495	15168_S_AT	2544	18301_S_AT
2450	12774_AT	2496	15271_AT	2545	18312_S_AT
2451	12787_AT	2497	15338_AT	2546	18326_S_AT
2452	12847_AT	2498	15418_AT	2547	18369_AT
2453	12848_AT	2499	15429_AT	2548	18411_AT
2454	12895_AT	2500	15548_AT	2549	18533_AT
2455	12911_S_AT	2501	15666_S_AT	2550	18576_S_AT
2456	12920_AT	2502	15672_S_AT	2551	18599_AT
	12921_S_AT	2503	!5680_S_AT	2552	18640_AT
2457	13027_AT	2504	15867_AT	2553	18672_S_AT
2458	13059_AT	2505	15918_AT	2554	18720_S_AT
2459	13075_I_AT	2506	15999_S_AT	2555	18768_AT
2460	13180_S_AT	2507	16303_AT	2556	18877_AT
2461	13255_I_AT	2508	16363_AT	2557	18942_AT
2462	13270_AT	2509	16440_S_AT	2558	
	18167_S_AT	2510	16458_S_AT	2559	
2463	13283_S_AT	2511	16475_AT	2560	18965_AT
2464	13382_AT	2512	16513_S_AT	2561	19060_AT
2465	13386_S_AT	2513	16529_AT	2562	19164_G_AT
2466	13433_AT	2514	16547_S_AT	2563	19266_AT
2467	13482_AT	2515	16553_F_AT	2564	19366_S_AT
2468	13732_AT	2516	16563_S_AT	2565	19369_AT
2469	13733_I_AT	2517	16629_S_AT	2566	19371_AT
2470	13842 AT	2518	16797_AT	2567	19386_AT
2471	13860_S_AT	2519	16814_AT	2568	19412_AT
2472	13868 AT	2520	16832_AT	2569	19427_S_AT
2473	13901_AT	2521	16976_S_AT	2570	19622_G_AT
2474	13933_AT	2522	17007_AT	2571	19681_AT
	-		-		_

TABLE 11 (cont)

2572	19819_S_AT
2573	19961_S_AT
2574	20002_AT
2575	20034_I_AT
2576	20062 AT
2577	20136_AT
2578	20223 AT
2579	20235_I_AT
2580	20401_AT
2581	20407_AT
2582	20470_AT
2583	20626_AT
2584	20631_S_AT
2585	20647_AT

167
TABLE 12: 2X UP IN MANNITOL, ONLY

```
12039 at
              16832 at
12068 at
              16993 at
12139_at
              17037_s_at
12212_at
              17054 s_at
12278_at
              17083_s_at
12366_s_at
              17097 s at
12453 at
              17119_s_at
              17270 at
12556_at
12575_s_at
              17305 at
              17376_at
12746 i at
              17378_at
12848_at
12869_s_at
              17449_s_at
12920_at
              17481_at
              17533_s_at
12921_s_at
13041 s at
              17832_s_at
              17923_s_at
13059_at
              17944_at
13241_s_at
13255_i_at
              18059_i_at
13270_at
              18216 at
13382_at
              18230 at
13406_at
              18255_at
              18284_at
13433_at
13550_at
              18301_s_at
              18312_s_at
13672_s_at
13716 at
              18326 s at
13842_at
              18599_at
              18672_s_at
13933_at
13995_at
              18720 s at
14062_at
              18768_at
14075_at
              18814_at
14162_at
              18877 at
14208_at
              18921_g_at
14217_at
              18960 at
14235_at
              19060 at
              19182 at
14310 at
14431 at
              19192_at
              19266_at
14513_s_at
14584_at
              19369 at
              19386_at
14604_at
14673 s at
              19402 at
14856_s_at
              19412_at
15207_s_at
               19432 s_at
15338_at
              19469 at
15406_at
               19622_g_at
15418_at
              19819_s_at
15591_s_at
              19826_at
              20152 at
15666 s_at
15680_s_at
              20223_at
              20235_i_at
15866_s_at
               20365_s_at
15918_at
              20470 at
16340_at
16553_f_at
               20537_at
16797_at
               20547_at
```

168
TABLE 13: 2X UP IN MANNITOL, 3 HR ONLY

```
12039_at
             17449_s_at
12068_at
             17481_at
12139 at
             17533 s at
12212 at
             17923 s at
12278_at
             17944 at
12366 s at
             18059 i at
12453_at
             18216_at
12556_at
             18230 at
12575_s_at
             18255_at
             18301_s_at
12746 i at
             18312_s_at
12848_at
             18326_s_at
12869 s at
12920_at
             18599 at
12921_s_at
             18720_s_at
13041_s_at
             18768 at
13059_at
             18814_at
             18877_at
13241 s at
13382_at
             18921_g_at
             18960 at
13406 at
             19060 at
13433 at
13550_at
             19192_at
13672 s at
             19266 at
13933_at
             19369 at
13995_at
             19386_at
14062 at
             19402 at
14075_at
             19412_at
14162_at
             19432_s_at
14217_at
             19469 at
14310_at
             19622 g_at
             19819 s at
14431 at
14513 s at
             20152 at
             20223 at
14584 at
             20235 i at
14604 at
             20365_s_at
14673_s_at
             20470_at
14856_s_at
15207_s_at
             20537_at
15338_at
15418 at
15591_s_at
15866_s_at
15918_at
16340_at
16553 f at
16797_at
16832 at
17037_s_at
17054 s at
17083 s at
17097_s_at
17270_at
17305_at
17376_at
```

17378_at

		169
	TABLE 14:	2X DOWN IN MANNITOL, ONLY
12028_at	14897_at	17958_at
12033_at	14918_at	18012_s_at
12110_at	15082_at	18227_at
12114_at	15084_at	18272_at
12189_at	15098_s_at	
12191_at		
12211_at		18411_at
12223_s_at		18533_at
12268_at		18576_s_at
12345_at	15271_at	18640_at
12381_at	15429_at	18640_at 18696_s_at 18945_at
12406_s_at		
12412_at	15672_s_at	
12522_at	15753_at	18953_at
12571_s_at	15867_at	18965_at
12662_at	15999_s_at 16001_at	19164_g_at
12787_at	16001_at	19322_at
12847_at	16001_at 16021_s_at 16190_at 16260_at	19366_s_at
12895_at	16190_at	19371_at
12911_s_at 13027_at	16260_at	19397_at
13027_at	16303 at	19421_5_al
13075_i_at	16363_at 16458_s_at	19681_at 19707_s_at
13221_at 13262_s_at		19839_at
13283_s_at	16475_at	
13386_s_at		
13447_s_at		19998_at
13482_at		
13634_s_at		20034_i_at
13709_s_at	16814_at	20136_at
13732 at	16847_at	20382_s_at
40700 : 01	16927_s_at	20407_at
13812_s_at	16976_s_at	20529_at 20626_at 20631_s_at
13825_s_at	17007_at	20626_at
13860_s_at	17014_s_at	20631_s_at
13868_at	17016_s_at	20647_at
13901_at	17071_s_at	20699_at
14052_at	17090_s_at	
14224_at	17257_s_at	
14244_s_at		
14254_s_at		
14256_f_at	17464_at 17468_at	
14354_at	17400_at 17511_s_at	
14476_at 14568_s_at	17511_s_at	
14506_s_at 14634_s_at	17515_s_at	
14634_s_at	17645_s_at	
14640_s_at	17741_at	
14686_s_at	17815_s_at	
14726_s_at	17897_at	
14848_s_at	17899_at	
14873_at	17934_at	
14883_at	17937_s_at	
-		

170

TABLE 15
COLD & OSOMOTIC STRESS RESPONSIVE SEQUENCES

1699 12040_AT 1742 13262_S_AT 1787 144 1700 12048_AT 1743 13286_S_AT 1788 144 1701 12054_S_AT 1744 13324_AT 1789 144 1702 12077_AT 1745 13340_S_AT 1790 145	ID NO: 31_AT 80_AT 97_AT 53_AT
1699 12040_AT 1742 13262_S_AT 1787 144 1700 12048_AT 1743 13286_S_AT 1788 144 1701 12054_S_AT 1744 13324_AT 1789 144 1702 12077_AT 1745 13340_S_AT 1790 145	31_AT 80_AT 97_AT 53_AT
1700 12048_AT 1743 13286_S_AT 1788 144 1701 12054_S_AT 1744 13324_AT 1789 144 1702 12077_AT 1745 13340_S_AT 1790 145	80_AT 97_AT 53_AT
1701 12054_S_AT 1744 13324_AT 1789 144 1702 12077_AT 1745 13340_S_AT 1790 145	97_AT 53_AT
1702 12077_AT 1745 13340_S_AT 1790 145	53_AT
	84_AT
	00_AT
	73_S_AT
-	32_S_AT
	81_G AT
	99 AT
	751_AT
	62_AT
	328_S_AT
<u>=</u>	356_S_AT
1713 12349_S_AT 1756 13626_AT 1800 148	330_3_A1 382_AT
	897_AT
14256_F_AT 1758 13672_S_AT 1802 149	97_A1 978_AT
	985_S_AT
	031_AT
)84_AT
	096_AT
	105_S_AT
	110_S_AT
	III_S_AT
	120_S_AT
1722 12754 G AT 14016 S AT 1811 151	126_S_AT
	142_S_AT
	144_S_AT
	184_S_AT
1726 12891_AT 1769 14060_AT 1815 151	198_S_AT
	203_S_AT
	207_S_AT
	240_AT
	366_AT
	398_AT
1731 13124_AT 1774 14096_AT 1821 154	406_AT
	448_AT
	466_AT
	481_AT
	484_AT
	549_AT
	591_S_AT
1737 13192_S_AT 14140_AT 1828 150	606_S_AT
	614_S_AT
1738 13212_S_AT 14217_AT 169	927_S_AT
. 1782 14178_AT 1830 150	629 S AT
1739 13215_S_AT 1783 14201_AT 1831 150	633_S_AT
16649_S_AT	641_S_AT
1740 13241_S_AT 1785 14235_AT 186	012_S_AT
	720_AT

PCT/US2001/026685

171

TABLE 15 (cont)

	15015 0 15	1004	17152 C AT	1026	10460 AT
1834	15815_S_AT	1884	17452_G_AT	1936	19469_AT
1835	15817_AT	1885	17540_S_AT	1937	19473_AT
1836	15837_AT	1886	17552_S_AT	1938	19597_S_AT
1837	15841_AT	1887	17571_AT	1939	19710_S_AT
1838	15866_S_AT	1888	17589_AT	1940	19830_AT
	18255_AT	1889	17641_G_AT	1941	19839_AT
1839	15872_AT	1890	17741_AT	1942	19840_S_AT
	18331_S_AT		18098_AT	1943	19853_AT
1840	15892_AT	1891	17766_AT	1944	19860_AT
1841	15933_AT	1892	17873_S_AT	1945	19880_AT
1842	15947_AT	1893	17904_AT	1946	19889_AT
1843	15959_S_AT	1894	17920_S_AT	1947	19898_AT
1844	16001_AT	1895	17925_AT	1948	
1845	16052_AT	1896	17943_AT	1949	19924_AT
1846	16161_S_AT	1897	18059_I_AT	1950	19949_AT
1847	16204_AT	1898	18230_AT	1951	19976_AT
1848	16232_S_AT	1899	18263_AT	1952	19998_AT
1849	16252 AT	1900	182 7 2_AT	1953	
1850	16260 AT	1901	18540_AT	1954	20151_AT
1851	16266 AT	1902	18608_AT	1955	20152_AT
1852	16299_AT	1903	18647_AT	1956	20187_AT
1853	16365 AT	1904	18662_S_AT	1957	
1854	16468_AT	1905	18664_AT	1958	20269_AT
1855	16477 AT	1906	18695_S_AT	1959	20271_AT
1856	16491 AT	1907	18704_AT	1960	20273_AT
1857	16523_S_AT	1908	18814 AT	1961	20299_AT
1858	16566_S_AT	1909	18907_S_AT	1962	20323_AT
1859	16570_S_AT	1910	18921 G AT	1963	20429_S_AT
1860	16688 AT	1911	18924_AT	1964	20457_AT
1861	16840 AT	1912	18949_AT	1965	20480_S_AT
1862	16847_AT	•	19707_S_AT	1966	20529_AT
1863	16893_AT	1913	18995_AT	1967	20547_AT
1864	16896_S_AT	1914	19017 AT	1968	20555_S_AT
1865	16898_S_AT	1915	19034_AT	1969	20699_AT
1866	16912_S_AT	1916	19063_AT		
1867	16980_AT	1917	19142_AT		
1863	16993_AT	1918	19158_AT		
1869	17008_AT	1919			
1870	17012_S_AT	1920	19187 AT		
1871	17014 S AT	1921	_		
1872	17016_S_AT	1922	19195 AT		
1873	17032_S_AT	1923	19199_AT		
1874	17050_S_AT	1924	19231_AT		
1074	17050_S_AT	1925	19263_AT		
1875	17071_S_AT	1926	19308_AT		
1876	17090_S_AT	1927	19322_AT		
1070	18690_S_AT	1928	19365_S_AT		
1877	17097_S_AT	1929	19372_AT		
1878	17104 S AT	1930	19389_AT		
1879	17119_S_AT	1931	19392_AT		
1880	17119_S_711 17160_AT	1932	19397_AT		
1881	17305_AT	1933			
1882	17424_AT	1934			
1883	17424_A1 17449_S_AT	1935	_		
1002	11447_0_111		• · · · · <u> </u>		

.172 FABLE 16: 2X UP IN MANNITOL & COLD, ONLY

	TABLE 16: 23
12345_at	17066_s_at
12784_at	17540_s_at
13153_r_at	17567_at
13212_s_at	17766_at
13215_s_at	17904_at
13246_at	17920_s_at
13262_s_at	17943 at
13361 at	18263 at
13625_s_at	18351_s_at
13764_at	18662_s_at
13810 at	18670 <u>g</u> at
14015_s_at	18695_s_at
14016_s_at	18704_at
14060_at	18729_at
14096_at	18995_at
14123_s_at	19158_at
14139_at	19473_at
14219_at	19710_s_at
14248 at	19883_at
14254_s_at	19889_at
14256_f_at	20030_at
14609 at	20269_at
14636_s_at	20271_at
14681_g_at	20299_at
14699_at	20429_s_at
14704_s_at	20438_at
14828_s_at	20480_s_at
14882_at	
15110_s_at	
15184_s_at	
15448_at	
15629_s_at	
15720_at	
15846_at	
15947_at	
16161_s_at	
16365_at	
16427_at	
16566_s_at	
16570_s_at	
16649_s_at	
16688_at	
16712_at	
16817_s_at	
16840_at	
16893_at	
16912_s_at	
16916_s_at	
16927_s_at	
16981_s_at	
17012_s_at	
17014_s_at	
17051_s_at	

173 TABLE 17: 2X DOWN COLD & MANNITOL, ONLY

```
17873 s_at
             14553 at
12040_at
                           17925_at
             14612_at
12048 at
                           18098_at
             14751 at
12054_s_at
                           18540_at
12077_at
             14762_at
                           18608_at
12107_i_at
             14978 at
                           18647 at
12113_at
             14985_s_at
              15031_at
                           18664_at
12154_at
              15096_at
                           18690_s_at
12171_at
              15111_s_at
                           18725 s_at
12317_at
                           18924_at
              15120 s_at
12325_at
                           19017_at
              15142_s_at
12333 at
                           19034 at
12356_at
              15198 s at
                           19063 at
12380_at
              15203_s_at
                           19141_at
              15240_at
12392_at
                           19142_at
12460_s_at
              15366_at
                            19180 at
              15392_at
12686_s_at
                            19187_at
              15398_at
12701 i at
                            19195_at
              15466_at
12782 r at
                            19199_at
              15481 at
12879_s_at
                            19231 at
              15484 at
12898_g_at
                            19308 at
12974_at
              15549_at
                            19372_at
12998_at
              15623 f at
                            19392 at
              15815_s_at
13144_at
                            19400 at
              15817_at
13147_at
                            19458_at
              15841_at
13152_s_at
                            19597_s_at
              15892_at
13192_s_at
                            19762_at
 13286_s_at
              15933_at
              15959_s_at
                            19830_at
 13324_at
              16052 at
                            19853_at
 13340_s_at
                            19869 at
              16204_at
 13441_s_at
                            19880 at
              16252_at
 13513_at
                            19898 at
 13573_at
              16266_at
                            19914_at
              16299_at
 13606_at
                            19924 at
              16477_at
 13609 at
                            19949_at
 13626_at
              16491 at
                            20151 at
               16561_s_at
 13736 at
                            20187_at
 13775_at
               16645 s_at
               16898_s_at
                            20214_i_at
 14029_at
               16980_at
                            20273_at
 14036 at
                             20323 at
               17008 at
 14051_at
                             20457_at
               17104_s_at
 14064_at
                             20555_s_at
               17160 at
 14066_at
               17317_at
 14094_s_at
               17400_s_at
 14104_at
               17452_g_at
 14126 s at
               17477_s_at
 14131_at
 14136_at
               17500 s at
               17552_s_at
 14178_at
               17571_at
 14192_at
               17572_s_at
  14201_at
               17589 at
  14242_s_at
               17641_g_at
  14480 at
```

17855_at

14497_at

174

TABLE 18

COLD & SALINE STRESS RESPONSIVE SEQUENCES

-	FFYMETRIX	2018	13544_AT		15047_AT
ID NO:	ID NO:	2019	13549_AT		15063_AT
	12021_AT	2020	13565_AT		15085_S_AT
	12037_AT		FFYMETRIX		15123_S_AT
	12094_AT	ID NO:			15133_S_AT
	12098_AT	2021	13580_AT	2067	15137_S_AT
1974	12128_AT	2022	13588_AT		FFYMETRIX
1975	12148_AT	2023	13649_AT	ID NO:	ID NO:
1976	12151_AT	2024	13652_AT	2068	15153_S_AT
1977	12357_S_AT	2025	13679_S_AT	2069	15170_S_AT
1978	12394_AT	2026	13696_AT	2070	15172_S_AT
1979	12472_S_AT	2027	13702_S_AT	2071	15182_S_AT
1980	12475_AT	2028	13751_AT	2072	15190_S_AT
1981	12482_S_AT	2029	13919_AT	2073	15241_S_AT
1982	12490_AT	2030	13943_AT	2074	15389_AT
1983	12505_S_AT	2031	13950_S_AT	2075	15453_S_AT
1984	12531_AT	2032	14050_AT	2076	15495_AT
1985	12540_S_AT	2033	14055_S_AT	2077	15496_AT
1986	12541 AT		16166_S_AT	2078	15519_S_AT
1987	12577_AT	2034	14067_AT	2079	15562_AT
1988	12594_AT	2035	14078_AT	2080	15580_S_AT
1989	12629_AT	2036	14110_I_AT	2081	15582_S_AT
1990	12642 AT	2037	14144_AT	2082	15638_S_AT
1991	12656_AT	2038	14232_AT		18751_F_AT
1992	12660 AT	2039	14285_AT	2083	15646_S_AT
1993	12712 F AT	2040	14346_AT	2084	15647_S_AT
1994	12725_R_AT	2041	14432_AT	2085	15654_S_AT
1995	12745_AT	2042	14468_AT	2086	15655_S_AT
1996	12777 I AT	2043	14479_AT	2087	15658_S_AT
1997	12790 S_AT	2044	14524_S_AT	2088	15670_S_AT
1998	12798_AT	2045	14608_AT	2089	15775_AT
1999	12801_AT	2046	14621_AT	2090	15798_AT
2000	12855_F_AT	2047	14635_S_AT	2091	1 <i>5</i> 930_AT
2001	12887_S_AT		17128_S_AT	2092	15931_AT
2002	12933_R_AT	2048	14640_S_AT	2093	15949_S_AT
2003	12951_AT	2049	14643_S_AT	2094	16017_AT
2004	13005_AT	2050	14663_S_AT	2095	16053_I_AT
2005	13015_S_AT	2051	14668_S_AT	2096	16078_S_AT
2006	13115_AT	2052	14688_S_AT	2097	16086_S_AT
2007	13178_AT		18279_S_AT	2098	16120_S_AT
2008	13228 AT	2053	14737_S_AT	2099	16126_S_AT
2009	13236_S_AT	2054	14768_AT	2100	16150_S_AT
	16646_S_AT	2055	14875_AT	2101	16159_S_AT
2010	13266_S_AT	2056	14911 S AT	2102	16230_AT
	15211 S AT		17056_S_AT	2103	16306_AT
2011	13275_F_AT	2057	14924_AT	2104	16367_I_AT
2012	13335_AT	2058	14956_S_AT	2105	16417 S AT
2013	13362 S AT		15148_S_AT		18083_R_AT
2014	13428_AT		18673_AT	2106	16418_S_AT
2015	13464 AT	2059	14964_AT	2107	16423_AT
2016	13480 AT	2060	15022_AT	2108	16449_S_AT
2017	13538_AT	2061	15040_G_AT	2109	16484_S_AT
	· · · -				— –

TABLE 18 (cont)

					00565 150
2110	16489_AT	2163	18455_AT	2218	20565_AT
2111	16565_S_AT	2164	18459_AT	2219	20570_AT
2112	16596_S_AT	2165	18571 AT	2220	20576_AT
2113	16600 S AT	2166	18604_AT	2221	20577_AT
2114	16603_S_AT		19181_S_AT	2222	20609_AT
		2167	18644_AT	2223	20646_AT
2115	16638_S_AT			2224	20672_AT
2116	16642_S_AT	2168	18745_F_AT		
2117	16763_AT		19611_S_AT	2225	20707_S_AT
2118	16914_S_AT	2169	18782_AT	2226	20720_AT
2119	16968 AT	2170	18881_AT		
2120	16983_AT	2171	18904_S_AT		
2121	16989_AT	2172	18914 S AT		
2122	17002 AT	2173	18963_AT		
		2174	19068_I_AT		
2123	17015_S_AT				
2124	17040_S_AT	2175	19078_AT		
	18913_S_AT	2176	19171_AT		
2125	17232_AT	2177	19177_AT		
2126	17380_AT	2178	19394_AT		
2127	17394_S_AT	2179	19411_AT		
	20640_S_AT	2180	19415_AT		
2128	17398 AT	2181	19466_S_AT		
2129	17448_AT	2182	19484 S_AT		
		2183	19549 S AT		
2130	17485_S_AT		19592 AT	•	
2131	17490_S_AT	2184			
2132	17499_S_AT	2185	19633_AT		
2133	17505_S_AT	2186	19641_AT		
2134	17516_S_AT	2187	19669_AT		
2135	17529_S_AT	2188	19672_AT		
2136	17543_S_AT	2189	19684_AT		
2137	17593_R_AT	2190	19692_AT		
213,	19858_S_AT	2191	19746_AT		
2138	17609_AT	2192	19835_AT		
	17698_AT	2193	19848 S AT		
2139	-	2194	19892_AT		
2140	17836_AT		19904_AT		
2141	17886_AT	2195	19936 AT		
2142	17896_AT	2196			
2143	17901_AT	2197	19974_S_AT		
2144	17902_S_AT	2198	19994_AT		
2145	17913_S_AT	2199	20005_S_AT	•	
2146	17924_AT	2200	20022_AT		
2147	17954_S_AT	2201	20032_AT		
2148	17960_AT	2202	20044_AT		
2149	17991_G_AT	2203	20049_AT		
2147	18967 S AT	2204	20081_AT		
2150	17999_AT	2205	20133_I_AT		
2150		2206	20155 S_AT		
2151	18057_I_AT		20163 S AT		
2152	18078_AT	2207			
2153	18091_AT	2208	20200_AT		
2154	18168_S_AT	2209	20296_S_AT		
2155	18252_AT	2210	20336_AT		
2156	18267_AT	2211	20341_AT		
2157	18300_AT	2212	20372_AT		
2158	18308_I_AT	2213	20385_S_AT		
2159	18328_AT	2214	20433_AT		
	18354 AT	2215	20489 AT		
2160		2216	20525 AT		
2161	18402_AT	2217	20543_AT		
2162	18416_AT	221/	20373_A1		

176
TABLE 19: 2X UP IN SALT & COLD, ONLY

(i)

```
18745 f at
12004 at
              15495 at_
12098_at
              15496 at
                             18904 s at
              15519_s_at
                             18914 s at
12148_at
12251_at
              15580_s_at
                             18929 s at
              15582_s_at
                             18946 at
12357_s_at
12394_at
              15776_at
                             18963_at
12457 at
              15798_at
                             19078_at
                             19137_at
              15910 at
12505 s at
                             19141 at
12522_at
              15931_at
              15937_at
                             19411 at
12541 at
              15949_s_at
                             19641 at
12594_at
              15972_s_at
                             19672_at
12606_at
                             19684_at
12697_at
              16048 at
                             19692 at
              16086_s_at
12745_at
                             19746 at
12781 at
              16120_s_at
              16126_s_at
                             19762 at
12798_at
                             19869 at
              16150_s_at
12855 f at
                             19894 at
12945_at
              16159 s at
              16230_at
12951_at
                             19904 at
13005_at
              16306_at
                             19936_at
              16418_s_at
                             19994_at
13015_s_at
              16423_at
                             20005_s_at
13115_at
              16449 s_at
                             20031_at
13146_s_at
                             20044 at
              16565_s_at
13335 at
                             20382_s_at
              16603 s at
13447 s at
13480_at
              16763 at
                             20406 g at
13544_at
              16968_at
                             20421_at
                             20525_at
              16983_at
13549 at
              17002 at
                             20543 at
13580_at
              17015_s_at
                             20565 at
13649 at
13943_at
              17019 s at
                             20570_at
              17078_s_at
                             20640_s_at
13950_s_at
                             20646_at
14110_i_at
              17232 at
14144 at
              17317_at
                             20720_at
              17394_s_at
14224_at
14432 at
              17516 s at
14468_at
              17585_s_at
               17609_at
14479 at
14524_s_at
              17698 at
              17836_at
14640_s_at
14643_s_at
               17896 at
14735_s_at
               17899_at
               17902_s_at
14737_s_at
               17960 at
14768_at
               17963 at
14784_at
               18168 s at
14924_at
 15064_at
               18252_at
 15127_s_at
               18267_at
               18308_i_at
 15186_s_at
 15189_s_at
               18354_at
 15255_at
               18402_at
               18459_at
 15389_at
```

15482 at

18484 at

177
TABLE 20: 2X DOWN IN COLD & SALT, ONLY

```
12021 at
             15123 s at
                           19394 at
12094_at
             15153_s_at
                           19415 at
                           19466_s_at
12128_at
             15172 s_at
             15190_s_at
                           19549 s_at
12151_at
                           19592_at
             15211_s_at
12332 s at
             15241_s_at
                           19633 at
12472 s_at
              15437_at
                           19669_at
12475 at
12482_s_at
              15562 at
                           19848 s at
                           19858_s_at
              15638_s_at
12490_at
              15647 s at
                           19878 at
12531_at
              15654_s_at
                           19892 at
12540_s_at
              15655_s_at
                           19974_s_at
12577_at
              15658_s_at
                           20022 at
12629_at
                           20032_at
              15695_s_at
12642 at
              15846 at
                           20049_at
12660_at
              15930_at
                           20081 at
12676 s_at
                           20155_s_at
              16053 i at
12712_f_at
              16078_s_at
                           20163_s_at
12725_r_at
              16229_at
                           20296_s_at
12777 i at
              16465_at
                           20336 at
12790_s_at
              16484_s_at
                           20341_at
12801_at
                           20365_s_at
12887_s_at
              16596_s_at
                           20372_at
              16600 s_at
12933 r_at
                           20489_at
              16642_s_at
13153 r at
                           20491_at
              16914 s at
13228_at
                           20576 at
              17027_s_at
13362_s_at
                           20577_at
              17066_s_at
13428 at
13538_at
              17083_s_at
                           20609_at
                            20672 at
13565_at
              17128_s_at
13588 at
              17380_at
13696_at
              17398_at
13702_s_at
              17448_at
13716_at
              17485_s_at
              17490 s at
13764 at
              17499_s_at
14050 at
              17505 s at
14055_s_at
              17514_s_at
14069_at
14078_at
              17593 r at
              17886_at
14232_at
14346 at
              17913_s_at
14608_at
              17924_at
              17954_s_at
 14609 at
 14621_at
              17991_g_at
              18057_i_at
 14635_s_at
              18069_at
 14663 s_at
              18328 at
 14688_s_at
              18416_at
 14691 at
               18604 at
 14704_s_at
               18644_at
 14875_at
 14911_s_at
               18881_at
 14964 at
               19171_at
               19181_s_at
 15022 at
```

19182_at

15085_s_at

178

TABLE 21 OSMOTIC & SALINE STRESS RESPONSIVE SEQUENCES

SEQ	AFFYMETRIX	SEQ	AFFYMETRIX		AFFYMETRIX
ID NO:	ID NO:	ID NO:	ID NO:	ID NO:	ID NO:
2586	12126 S AT	2634	16073_F_AT	2681	19409_AT
2587	12137 AT	2635	16114_S_AT	2682	19503_AT
2588	12227_AT	2636	16127_S_AT	2683	19826 AT
2589	12239_AT		18744 F AT	2684	19847_S AT
2590	12268 AT	2637	16190_AT	2685	19930_AT
2591	12369_AT	2638	16196 AT	2686	19992_AT
2592	12476 AT	2639	16236_G_AT	2687	20096_AT
	12476_A1 12484 G_AT	2007	19531_AT	2688	20108 AT
2593		2640	16310_AT	2689	20256_S_AT
2594	12494_AT	2641	16316 AT	2690	20290 S AT
2595	12644_AT		_	2691	20298 AT
2596	12645_AT	2642	16334_S_AT		
2597	12796_S_AT	2643	16335_AT	2692	20305_AT
2598	12819_AT	2644	16340_AT	2693	20322_AT
2599	12841_AT	2645	16450_S_AT	2694	20333_AT
2600	12852_S_AT	2646	16500_AT	2695	20402_S_AT
	19455_S_AT	2647	16524_AT	2696	20424_AT
2601	13084_AT	2648	16533_AT	2697	20446_S_AT
2602	13171_AT	2649	16690_G_AT	2698	20450_AT
2603	131 7 4_R_AT	2650	16762_AT	2699	20468_AT
2604	13596_AT	2651	16819_AT	2700	20569_S_AT
2605	13807_AT	2652	16873_I_AT	2701	20639_AT
2606	13977 AT	2653	16972_AT	2702	20678_AT
2607	13999 AT	2654	16991_AT	2703	20686_AT
2608	14052_AT	2655	17099_S_AT		
2609	14293 AT	2656	17339_AT		
2610	14335_AT	2657	17397_S_AT		
2611	14486 AT	2658	17419_AT		
2612	14506 AT	2659			
2613	14518 AT	2660	17554_S_AT		
2614	14540 AT	2661	17939_AT		
2615	14578_S_AT	2662	18013_R_AT		
2616	14646_S_AT		18178_S_AT		
2617	14662_F_AT	2663	18024 S AT		
2017	15962_S_AT	2664	-		
2610	14901 AT	2665	18054 AT		
2618	14918_AT	2666	18151_AT		
2619		2667	18281 AT		
2620	14986_AT	2668	18445_AT		
2621	15053_S_AT	2669	18520_AT		
2622	15179_S_AT	2670	18583_AT		
2623	15252_G_AT	2671	18663_S_AT		
2624	15280_AT		18753_S_AT		
2625	15467_AT	2672	18876_AT		
2626	15607_S_AT	2673			
2627	15625_S_AT	2674	18938_G_AT		
2628	15703_I_AT	2675	18971_AT		
2629	15827_AT	2676	18977_AT		
2630	15863_AT	2677	18981_AT		
2631	15923_AT	2678	19099_AT		
2632	15946_S_AT	2679	19196_AT		
2633	16005_S_AT	2680	19376_AT		

179

TABLE 22: 2X UP IN SALT & MANNITOL, ONLY

```
17548 s at
12126_s_at
               17554_s_at
12227_at
12369_at
               17961_at
               18032_i_at
12521 at
               18054 at
12644_at
               18151_at
12645 at
               18167_s_at
12724_f_at
               18281_at
12795_at
               18520_at
12796_s_at
               18663_s_at
12841_at
               18744_f_at
12852_s_at
               18753_s_at
12958 at
               18789 at
13014 at
               18876_at
13174_r_at
               18909_s_at
13211_s_at
               18938 g_at
13596_at
                18977_at
13640_at
13789_at
                19099_at
13977_at
                19108_at
                19135_at
13999 at
                19227_at
14069_at
                19376 at
14083_at
                19429_at
14089 at
                19455_s_at
14293_at
                19531_at
14675_s_at
                19789_s_at
 15053_s_at
                19878_at
 15058_s_at
                20017_at
 15252_g_at
 15280_at
                20096_at
                20256_s_at
 15437_at
                20290_s_at
 15607_s_at
                20305 at
 15625_s_at
                20322_at
 15827 at
                20333 at
 15863_at
                20420_at
 15880_at
                20424_at
 16005_s_at
                20689_s_at
 16031_at
 16073 f at
 16316_at
 16334_s_at
 16335_at
 16450_s_at
 16500_at
 16524_at
 16533_at
 16597_s_at
 16819 at
  17085_s_at
  17099_s_at
  17339 at
  17419_at
  17442_i_at
```

17514_s_at

WO 2002/016655 PCT/US2001/026685

180

TABLE 23: 2X DOWN IN MANNITOL & SALT, ONLY

12239_at 20108 at 20298 at 12251 at 20421_at 12476_at 20432 at 12484_g_at 12494_at 20446_s_at 12561_at 20639_at 12647_s_at 12719_f_at 12819_at 12841_at 13084_at 13171_at 13172_s_at 13435_at 13807_at 14250_r_at 14335_at 14486_at 14506_at 14518_at 14901_at 15046_s_at 15179_s_at 15451_at 15703_i_at 15946_s_at 16014_s_at 16114_s_at 16310_at 16342_at 16712_at 16762_at 16972_at 16991_at 17397_s_at 17408_at 17460_at 17775_at 17939_at 18445_at 18583_at 18751_f_at 18971_at 18981_at 19156_s_at 19196_at 19359_s_at · 19409_at 19503_at 19713 at 19718_at

19847_s_at 19930_at WO 2002/016655 PCT/US2001/026685

181

TABLE 24
COLD, OSMOTIC & SALINE RESPONSIVE SEQUENCES

SEQ A	FFYMETRIX	SEQ	AFFYMETRIX	SEQ A	AFFYMETRIX
ID NO:	ID NO:	ID NO		ID NO:	ID NO:
	12004 AT	1306	12945 AT		13725 AT
	12023_S_AT	1307	12958_AT		13764_AT
	12078 AT	1308	12964 AT		13771_AT
	12115 AT	1309	12968 AT	1350	13789_AT
	12118 AT	1310	12972 AT	1351	13916_AT
	12170_AT	1311	12989_S_AT	1352	13965_S_AT
	12150_AT 12251_AT	1312	13004 AT		13967_AT
	12271 S AT	1313	13014 AT	1354	14028 AT
	12276 AT	1314	13025 AT	1355	14039 AT
	12332 S AT	1315	13036_AT	1356	14046_AT
12/1	13211_S_AT	1316	13099 S_AT	1357	14049 AT
1272	12338_AT	1317	13136 AT	1358	14069_AT
	12400_AT	1318	13146_S_AT	1359	14077_AT
1273	12430 AT	1310	13239_S_AT	1360	14080_AT
	12450_AT	1319	13153_R_AT	1361	14083 AT
1275		1320	13159_AT	1362	14089 AT
1276	12521_AT 12522_AT	1321	13176_AT	1363	14090 I AT
1277		1322	13217 S AT	1364	14097 AT
	12530_AT 12536_S_AT	1322	17500_S_AT	1365	14116_AT
1279		1323	13225_S_AT	1366	14151_AT
1280	12538_AT	1323	15997_S_AT	1300	14219_AT
1281	12561_AT	1324	13230_S_AT	1367	
1282	12574_AT	1324	15972 S AT	1368	
1002	19019_I_AT	1325	13279_S_AT	1369	
1283	12595_AT	1323	17477_S_AT	1370	14224 AT
1284	12606_AT	1326	13280_S_AT	1371	
1285	12609_AT	1320	20301_S_AT	1372	14244_S_AT
1286	12622_AT	1327	13282_S_AT	1372	14245_AT
1287	12630_AT	1321	17027_S_AT		14645_S_AT
1288	12647_S_AT	1328			15974_G_AT
1289	12676_S_AT	1329		1373	14248_AT
1290	12697_AT	1330		1374	
1291	12698_AT	1331	-	1375	14367_AT
1292	12719_F_AT	1332	12474 AT	1376	14381_AT
1293	12724_F_AT	1333		1377	14384_AT
	15871_S_AT	1334	13511_AT 13546_AT	1378	14398_S_AT
1001	16597_S_AT		155 10_111	1379	
1294	12749_AT	1335 1336		1380	14582_AT
1295	12765_AT			1381	14597_AT
1296	12769_AT	1337 1338		1382	
1297	12781_AT		_	1382	14612 AT
1298	12785_AT	1339		1203	19267_S_AT
1299	12792_S_AT	1340		1384	19207_3_AT 14614_AT
1300	12795_AT	1341		1385	14636_S_AT
1301	12805_S_AT	1342		1386	14636_S_AT
1302	12857_AT	1343		1200	14644_S_AT
1303	12883_S_AT	1344			14658_S_AT
1304	12909_S_AT	1345			
	16539_S_AT		19701_S_AT	1207	15964_S_AT
1305	12932_S_AT	1346		1387	14675_S_AT
	15605_S_AT		18228_AT		

TABLE 24 (cont)

1388	14691_AT	1443	15753_AT	1496	16789_AT
	14709_AT	1444	15761_AT	1497	16818_S_AT
1389	14704_S_AT	1445	15776_AT	1498	16971_S_AT
1000	15846_AT	1446	15778_AT	1499	17018_S_AT
1390	14705_I_AT	1447	15839_AT	1500	17019_S_AT
1391	14733_S_AT	1448	15842_AT	1501	17029_S_AT
1392	14735_S_AT	1449	15857_S_AT	1502	17041_S_AT
1393	14779_AT	1450	15859_AT	1503	17047_S_AT
1394	14784_AT	1451	15880_AT	1504	17066_S_AT
1395	14923_AT	1452	15886_AT	1505	17085_S_AT
1396	14947_AT	1453	15906_S_AT	1506	17089_S_AT
1397	14950_AT	1454	15910_AT	1507	17179_AT
1398	14990_AT	1455	15937_AT	1508	17180_AT
1399	14998_AT	1456	15957_AT	1509	17228_AT
1400 1401	15005_S_AT	1457 1458	15970_S_AT 15985_AT	1510	17252_AT
1401	15018_AT	1458		1511	17317_AT
1402	15045_AT 15046_S_AT	1439	16010_S_AT 16011_S_AT	1512 1513	17338_AT
1404	15052 AT		17078_S_AT	1513	17384_AT
1405	15052_AT 15058 S AT	1460	16021_S_AT	1514	17387_S_AT 17400 S AT
1406	15064_AT	1461	16031_AT	1516	17400_S_AT
1407	15088_S_AT	1462	16038_S_AT	1517	17407_S_AT
1408	15098_S_AT	1463	16045_S_AT	1518	17403_AT
1409	15103 S_AT	1464	16046_S_AT	1519	17416_AT
1410	15109 S AT	1465	16048 AT	1520	17425_S_AT
1411	15124_S_AT	1466	16061 S AT	1521	17440 I AT
1412	15127_S_AT	1467	16082_S_AT	1522	17442 I AT
1413	15145_S_AT	1468	16111_F_AT	1523	17473 AT
1414	15154_S_AT	1469	16115_S_AT	1524	17484_AT
1415	15161_S_AT	1470	16141_S_AT	1525	17514 S AT
1416	15189_S_AT	1471	16144_S_AT	1526	17520_S_AT
1417	15214_S_AT	1472	16163_S_AT	1527	17533_S_AT
1418	15255_AT	1473	16173_S_AT	1528	17548_S_AT
1419	15356_AT	1474	16229_AT		19614_AT
1420	15357_AT	1475	16298_AT	1529	17549_S_AT
1421	15364_AT	1476	16301_S_AT	1530	17555_S_AT
1422	15392_AT	1477	16322_AT	1531	17567_AT
1423	15403_S_AT	1478	16342_AT	1532	17654_AT
1424	15437_AT	1479	16351_AT	1533	17693_AT
1425	15451_AT	1480	16412_S_AT	1534	17697_AT
1426	15476_AT	1481	16422_AT	1535	17722_AT
1427	15482_AT	1482	16427_AT	1536	17752_AT
1428	15483_S_AT	1483	16438_AT	1537	17755_AT
1429	15521_S_AT	1484	16474_S_AT	1538	17775_AT
1430	15522_I_AT 15531 I AT	1485 1486	16482_S_AT 16485_S_AT	1539 1540	17832_S_AT
1431 1432	15571_AT 15573_AT	1460	18052_S_AT	1541	17840_S_AT 17843 S AT
1432	15575_AT 15581_S_AT	1487	16493_AT	1542	17855_AT
1433	15586_S_AT	1488	16534_S_AT	1542	17860 AT
1435	15580_S_AT 15594 S AT	1489	16555_S_AT	1544	17869 AT
1436	15609 S AT	1490	16561_S_AT	1545	17888_AT
1437	15611_S_AT	, 0	17572_S_AT	1546	17899_AT
1437	15621_F_AT	1491	16592_S_AT	1547	17929 S AT
1439	15623_F_AT	1492	16615 S AT	1548	17930_S_AT
1440	15669 S AT	1493	16637_S_AT	1549	17932 S AT
1441	15695 S AT	1494	16692_AT	1550	17936_S_AT
1442	15702_S_AT	1495	16712_AT		18670_G_AT
	- · · · - · - · - ·		_		

TABLE 24 (cont)

1551	17957_AT	1606	19152_AT	1663	20040_AT
1552	17961_AT	1607	19156_S_AT	1664	20042_S_AT
1553	17962 AT	1608	19182_AT	1665	20060_AT
1554	17963 AT	1609	19186_S_AT		20438_AT
1555	17971_S_AT	1610	19214_AT	1666	20089_AT
1556	1 7 975 AT	1611	19216_AT	1667	20118_AT
	18742_F_AT	1612	19227_AT	1668	20144_AT
1557	18016_R_AT	1613	19243_AT	1669	20149_AT
1558	18069_AT	1614	19288 AT	1670	20179_AT
1559	18122_AT	1615	19359 S_AT	1671	20190_AT
1560	18140 AT	1616	19368_AT	1672	20194_AT
1561	18199 AT	1617	19379_AT	1673	20219_AT
1562	18224_S_AT	1618	19380 S AT	1674	20245_S_AT
1563	18225_AT	1618 1619	19398 AT	1675	20263 AT
1564	18235_AT	1620	19421_AT	1676	20308_S_AT
1565	18259_S_AT	1621	19424 AT	1677	20335_S_AT
1566	18265 AT	1622	19429_AT	1678	20338_AT
1567	18270_AT1568	1623	19430_AT	1679	20345_AT
1507	18280_AT	1624	19450_AT	1680	20365_S_AT
1569	18289_AT	1625	19457_AT	1681	
	18296_AT	1626	19467_AT	1682	
1570	18298 AT	1627	19516_AT	1683	
1571	18314_I_AT	1628	19545 AT	1684	
1572		1629	19564 AT	1685	
1573	18318_AT	1630	19577_AT	1686	20432 AT
1574	18325_AT	1631	19593_AT	1687	20437_AT
1575	18351_S_AT	1632	19602_AT	1688	20442_I_AT
1576	18471_AT	1633	19618_AT	1689	20463_S_AT
1577	18482_S_AT	1634	19638_AT	1690	20491_AT
1578	18484_AT	1635	19640 AT	1691	20537_AT
1579	18560_AT	1636	19646_S_AT	1692	20573_AT
1580	18564_AT	1637	19656_S_AT	1693	20636_AT
1581	18590_AT	1638	19670 AT	1694	20638 AT
1582	18594_AT	1639	19676_AT	1695	20641_AT
1583	18595_AT	1640	19090_A1 19713_AT	1696	20658_S_AT
1584	18596_AT	1641	19713_AT 19718_AT	1697	
1585	18629_S_AT	1642	19718_A1 19722_S_AT	1698	20698_S_AT
1586	18637_AT		19722_S_AT 19749 AT	1070	20070_5_111
1587	18661_AT	1643	19749_AT 19755_AT		
1588	18668_AT	1644 1645	19753_AT 19762_AT		
1589	18699_I_AT	1646	19702_K1 19789_S_AT		
1590	18747_F_AT		19789_S_AT		
	18789_AT	1647	19813_AT		
1591	18761_AT	1648	19843_AT		
1592	18833_AT	1649			
1593	18875_S_AT	1650	19878_AT		
1594	18894_AT	1651	19883_AT 19894 AT		
1595	18936_AT	1652			
1596	18946_AT	1653	19926_AT		
1597	18953_AT	1654	19944_AT		
1598	18955_AT	1655	19968_AT		
1599	18972_AT	1656	19977_AT		
1600	19008_S_AT	1657	19982_AT		
1601	19108_AT	1658	19987_AT		
1602	19123_AT	1659	19991_AT		
1603	19135_AT	1660	20015_AT		
1604	19137_AT	1661	20017_AT		
1605	19141_AT	1662	20031_AT		

184 TABLE 25: 2X UP IN COLD, SALT & MANNITOL

12023_s_at	14733_s_at	17047_s_at	19640_at
12332_s_at	14923_at	17179_at	19646_s_at
12530_at	14990_at	17180_at	19656_s_at
12536_s_at	15005_s_at	17252 at	19701_s_at
12574_at	15018_at	17384 at	19843 at
12595_at	15052_at	17407_s at	19944_at
12698_at	15088_s_at	17484_at	19982_at
12749 at	15098_s_at		19987_at
12765_at	15103_s_at	_	19991_at
	15145_s_at		20042_s_at
12769_at	15145_s_at 15154_s_at		20042_3_at
12785_at		17722_at	20118_at
12857_at	15161_s_at	_	
12964_at	15214_s_at	17840_s_at	20144_at
12972_at	15356_at	17843_s_at	20149_at
12989_s_at	15521_s_at	17860_at	20179_at
13004_at	15573_at	17929_s_at	20194_at
13025_at	15586_s_at	17936_s_at	20245_s_at
13036_at	15609_s_at	17962_at	20390_s_at
13099_s_at	15611_s_at	18052_s_at	20437_at
13136_at	15621_f_at	18069_at	20463_s_at
13176_at	15669_s_at	18122_at	20491_at
13220_s_at	15695_s_at	18199_at	20641_at
13225_s_at	15753_at	18259_s_at	20658_s_at
13230_s_at	15761_at	18280_at	
13239_s_at	15857_s_at	18289_at	
13426_at	15871_s_at	18314_i_at	
13474_at	15964_s_at	18318_at	
13548_at	15970_s_at	18325_at	
13555_at	15974_g_at	18482_s_at	
13595_at	15997_s_at	18590_at	
13627_at	16011_s_at	18594_at	
13645_at	16021_s_at	18595_at	
13647_at	16038_s_at	18596_at	
13706_s_at	16046_s_at	18629_s_at	
13965_s_at	16082_s_at	18661_at	
13963_s_at	16111_f_at	18668_at	
14080_at	16115_s_at	18699_i_at	
	16127_s_at	18722_s_at	
14090_i_at	16141_s_at		
14097_at	16144_s_at		
14116_at	16163_s_at	_	
14151_at		_	
14172_at	16236_g_at		
14192_at	16301_s_at		
14244_s_at	_	19152_at	
14245_at	16422_at	19186_s_at	
14367_at	16474_s_at	19214_at	
14398_s_at		19368_at	
14582_at	16485_s_at	19379_at	
14614_at	16555_s_at	19380_s_at	
14644_s_at		19421_at	
14645_s_at		19545_at	
14658_s_at	16637_s_at	19614_at	
- 14659_s_at	17041_s_at	19638_at	

185 TABLE 26: 2X DOWN IN COLD, MANNITOL & SALT, ONLY

12078_at	15189_s_at	17869_at	20015_at
12115 at	15357 at	17888 at	20040_at
12118_at	15364_at	17930_s_at	20089_at
12150_at	15403_s_at	17932_s_at	20089_at 20190_at 20219_at 20263_at 20301_s_at
12271 s_at	15476_at	17957_at	20219_at
12276 at	15483 s_at	17963_at	20263_at
12338_at	15522 i at	17971 s_at	20301 s at
12400 at	15531_i_at	17975 at	20308 s at
12430 at	15594_s_at	18016 r at	20338 at
12538 at	15702_s_at	18140 at	20345 at
12622 at	15778_at	18224 s at	20395 at
12630 at	15839_at	18225 at	20442 i at
12805 s at	15859 at	18235 at	20537_at 20573_at 20636_at 20638_at
12883 s at	15872 at	18265_at	20636 at
12005_5_at	15880 at	18270_at	20638 at
12909_3_at	15886 at	18296 at	20608_c at
12902_5_at	15000_at	18208 at	20030_3_at
12300_at	15950_s_at	10230_at	20638_at 20698_s_at
13139_at	10907_dt	1047 1_at	
13217_s_at	15965_at	10004_at	
13279_s_at	16045_S_at	10037_at	
13282_s_at	16061_S_at	10/42_1_at	
13432_at	16173_S_at	18701_at	
13511_at	16298_at	18833_at	
13546_at	16351_at	18875_s_at	
13547_s_at	16412_s_at	18894_at	
13587_at	16438_at	18946_at	
13610_s_at	16493_at	19123_at	20698_s_at
13640_at	16534_s_at	19216_at	
13725_at	16539_s_at	19243_at	
13771_at	16615_s_at	19267_s_at	
13916_at	.16692_at	19288_at	
14028_at	16789_at	19398_at	
14039_at	16818_s_at	19424_at	•
14046_at	16971_s_at	19430_at	
14049_at	17018_s_at	19450_at	
14077_at	17029_s_at	19457_at	
14170_at	17089_s_at	19467_at	
14227_at	17228_at	19516_at	
14248_at	17338_at	19564_at	
14381_at	17387_s_at	19577_at	
14384_at	17413_s_at	19593_at	
14487_at	17416_at	19602_at	
14597_at	17425_s_at	19618_at	
14705_i_at	17440_i_at	19670_at	
14709 at	17473_at	19696_at	
14779 at	17533_s_at		
14947_at	17549_s_at		
14950_at	17654_at	19755_at	
14998_at	17693_at	19815_at	
15045_at	17697_at	19926_at	
15109_s_at	_	19968 at	•
15124_s_at	_		

186
TABLE 27: 2X ROOT SPECIFIC (COLD, SALINE & OSMOTIC STRESSES)

	TABLE 27: 2X ROO	T SPECIFIC (COLD, S	ALINE & OSMOTIC STRESSE
11997 at	14069_at	16052_at	18327_s_at
12004_at	14072_at	16053_i_at	18597_at
12051_at	14073_at	16105_s_at	18607_s_at
12072_at	14097_at	16161_s_at	18636 at
12150_at	14139_at	16165_s_at	18663_s_at
12151_at	14235_at	16298_at	18782_at
12166_i_at	14250_r_at	16334_s_at	18885_at
12219 at	14578_s_at	16422 at	18888 at
12315_at	14582_at	16427 at	18942_at
12332_s_at	14640 s at	16440_s_at	 18955_at
12374 i at	14643 s_at	16442_s_at	19060_at
12482_s_at	14644_s_at	16468_at	19108_at
12515_at	14658_s_at	16488_at	19135_at
12522_at	14659_s_at	16511 at	19137_at
12538_at	14711_s_at	16529_at	19195_at
12571_s_at	14900_at	16553_f_at	19263_at
12574_at	14924_at	16568_s_at	19376_at
12609_at	14990_at	16914_s_at	19406_at
12678_i_at	15018_at	16965_s_at	19432_s_at
12698_at	15022_at	16981_s_at	19835_at
12749_at	15107_s_at	16989_at	19836_at
12760_g_at	15116_f_at	17033_s_at	19840_s_at
12765_at	15120_s_at	17066_s_at	19841_at
12768_at	15124_s_at	17085_s_at	19843_at
12769_at	15131_s_at	17252_at	19926_at
12772_at	15132_s_at	17376_at	19972_at
12777_i_at	15137_s_at	17378_at	19977_at
12958_at	15184_s_at	17388_at	19991_at
12989_s_at	15188_s_at	17415_at	20034_i_at
13015_s_at	15208_s_at	17429_s_at	20042_s_at
13134_s_at	15252_g_at	17463_at	20189_at
13146_s_at	15343_at	17485_s_at	20194_at
13172_s_at	15389_at	17490_s_at	20200_at
13178_at	15392_at	17567_at	20214_i_at
13179_at	15448_at	17585_s_at	20239_g_at
13187_i_at	15503_at	17595_s_at	20262_at
13211_s_at	15531_i_at	17840_s_at	20269_at
13239_s_at	15594_s_at	17860_at	20294_at
13273_s_at	15609_s_at	17880_s_at	20312_s_at
13297_s_at	15623_f_at	17894_at	20382_s_at
13549_at	15639_s_at	17896_at	20396_at
13604_at	15670_s_at	17899_at	20432_at
13629_s_at	15680_s_at	17911_at	20444_at
13706_s_at	15859_at	17935_at	20446_s_at
13714_at	15900_at	17961_at	20480_s_at
13751_at	15923_at	18024_s_at	20586_i_at
13895_at	15962_s_at	18122_at	20612_s_at
13933_at	15964_s_at	18222_at	20672_at
13967_at	15965_at	18224_s_at	20686_at
13985_s_at	15975_s_at	18252_at	20689_s_at
14028_at	15985_at	18255_at	
14030_at	16001_at	18269_s_at	
14058_at	16048_at	18270_at	

WO 2002/016655 PCT/US2001/026685

187
TABLE 28: 2X LEAF SPECIFIC (COLD, SALINE & OSMOTIC STRESSES)

```
12169 i_at
              16136_s_at
12186_at
              16172_s_at
              16316_at
12187 at
12211 at
              16385 s at
12212_at
              16455 at
              16485 s at
12214_g_at
12270_at
              16512_s_at
12645 at
              16547_s_at
12754_g_at
              16548 s at
              16629_s_at
12774_at
              16673_at
12793 at
12796_s_at
              16899_at
              17010 s at
12910 s at
12916 s_at
              17018 s_at
              17054_s_at
12953 at
13090 at
              17095_s_at
13124_at
              17097_s_at
13335_at
              17273 at
13550_at
              17394_s_at
              17420 at
13567 at
              17449_s_at
13568_at
              17600 s_at
13596_at
13614 at
              17843 s at
              17913_s_at
13678_s_at
              17966_at
13719 at
14014_at
              18003_at
              18081_at
14096_at
14118 i at
              18560_at
14369_at
              18588 at
14478_at
              18626 at
              18644 at
14513 s at
              18666_s_at
14540 at
              18742 f at
14596_at
14733 s at
              18977 at
14986_at
              18994_at
              19227_at
15045 at
              19373 at
15097_s_at
              19834_at
15098_s_at
15145 s at
              19867 at
15153_s_at
              19998_at
              20062 at
15154 s at
              20199 at
15182_s_at
              20256_s_at
15203 s at
15372_at
              20284 at
              20437_at
 15521_s_at
              20442 i_at
 15581_s_at
              20450_at
 15621_f_at
 15642 s at
              20468_at
 15776_at
              20547 at
               20635 s_at
 15910 at
 16017_at
 16046_s_at
 16115_s_at
```

188
TABLE 29: 2X TRANSCRIPTION (COLD, SALINE & OSMOTIC STRESSES)

	TABLE 29: 2X TRAIN	SCRIPTION (COLD, SALINE & OSMOTIC STRESSES)
12068_at	· 15665_s_at	19836_at
12166_i_at	15679_s_at	19860_at
12374_i_at	15720_at	19866_at
12392_at	15871_s_at	19898_at
12431_at	16072_s_at	20262_at
12450_s_at	16073_f_at	20335_s at
12503_at	16105_s_at	20362_at
12536_s_at	16111_f_at	20424_at
12540_s_at	16127_s_at	20437_at
12541_at	16534_s_at	20456_at
12587_at	16582_s_at	20515_s_at
12594_at	16589_s_at	20635_s_at
12595_at	16747_at	
12704_f_at	17019_s_at	
12705_f_at	17129_s_at	
12709_f_at	17160_at	
12712_f_at	17520_s_at	
12719_f_at	17538_s_at	
12724_f_at	17555_s_at	
12725_r_at	17609_at	
12726_f_at	17896_at	
12734_f_at	17971_s_at	
12736_f_at	17975_at	
12737_f_at	17978_s_at	
12812_at	18121_s_at	
12949_at	18167_s_at	
12951_at	18197_at	
12966_s_at	18222_at	
13023_at	18318_at	
13034_s_at	18576_s_at	
13087_at	18629_s_at	
13270_at	18738_f_at	
13273_s_at	18742_f_at	
13432_at	18744_f_at	
13555_at	18745_f_at	
13688_s_at	18747_f_at	
13714_at	18750_f_at	
13965_s_at	18751_f_at	
13987_s_at .	-	
14003_at	18834_at	
14144_at	18942_at	
14178_at	19083_at	
14223_at	19202_at	
14235_at	19209_s_at	·
14303_s_at	19232_s_at	
14393_at	19315_at	
14553_at	19489_s_at	
14781_at	19611_s_at	
15046_s_at	19646_s_at	
15053_s_at	19707_s_at	
15214_s_at	19722_s_at	
15510_r_at	19744_at	
15638_s_at	19755_at	•

189
TABLE 30: 2X PHOSPHATES (COLD, SALINE & OSMOTIC STRESSES)

	TABLE 30. 2A FITOSI HATES (COLD, SALINE & OSMOTIC STRESSES)
12470_at	
12556_at	
13128 at	
13135_s_at	
13180 s_at	
13192_s_at	
13193_s_at	•
13587_at	•
13995_at	
14335_at	
15073_at	
15171_s_at	
15240_at	
15586_s_at	
15641_s_at	
15651_f_at	
15990_at	
16232_s_at	
16576_f_at	
16753_at	
17423_s_at	
17525_s_at	
17537_s_at	
17929_s_at	
17954_s_at	· .
18012_s_at	
18308_i_at	
18616_at	
18847_at	
18936_at	
18980_at	
19243_at	·
19263_at	
19638_at	
19883_at	
19932_at	
20333_at	
20393_at	
20570_at	

190
TABLE 31: 2X KINASES (COLD, SALINE & OSMOTIC STRESSES)

	TABLE 31 : 2X	KINASES (COLD, S.
12253 g at	16059_s_at	20144 at
	16087_s_at	
12271 s at	16088 f at	20223_at
12276 at	16125_s_at	20232 s at
12278 at	16088_f_at 16125_s_at 16137_s_at	20235 i at
177X/L at	1614U S 21	707X7 C 31
12300 at	16143 s at	20298 at
12284_at 12300_at 12307_at 12353_at	16144 s at	20396 at
12353_at	16160 f at	20439 at
12357_s_at 12390_at 12394_at	16143_s_at 16144_s_at 16160_f_at 16171_s_at 16357_at 16412_s_at	20462 at
12390 at	16357 at	_
12394 at	16412_s_at	
12408 at	16570_s_at 16571_s_at	
12452 at	16571_s_at	
12477_at	16584_s_at	
	16651_s_at	
12497_at	16652_s_at	
12532_at	16672_at	
12697_at	16818_s_at	
12901_s_at	16818_s_at 16840_at	
12902_at	17068_s_at	
12958_at	17068_s_at 17122_s_at	
12959_at	17252_at	
13068_at	17252_at 17323_at	
12902_at 12958_at 12959_at 13068_at 13246_at	17475_at	
13324_at	17752_at	
13332_at	17921_s_at	
13362_s_at		
13370_at	17935_at	
13550_at	18013_r_at	
14030_at	18046_s_at	
14048_at	18122_at	
14194_at	18176_at	
14196_at	10310_at	
14217_at	18316_at 18455_at 18459_at	
14459_at 14603_at	18482_s_at	
14603_at	18543_at	
14686_s_at	18706_s_at	
15005_s_at	18782_at	
15005_s_at	18924_at	
15175_s_at 15270_at	19117_s_at	
15475_s_at	19437_s_at	
15475_s_at	19442_at	
15577_s_at	19458_at	
15616_s_at	19464_at	
15633_s_at	19469_at	
15633_s_at	19562_at	
15668_s_at	19655_at	
15680_s_at	19749_at	•
15000_s_at 15798_at	19854_at	
16034 at	19904_at	
10004_01	10004_00	

GenBanl: accession numbers and source organisms for nucleotide and amino acid sequence homologs of the listed SEQ ID NO:

TABLE 32

Zea mays Oryza sativa Fagus sylvatica	Pisum sativum Zea mays Oryza sativa Zea mays Oryza sativa	Oryza sativa Glycine max Glycine max		Oryza sativa Oryza sativa Oryza sativa Oryza longistaminata Oryza sativa Nicotiana tabacum Ipomoea nil Oryza longistaminata	Oryza longistaminata
40 AB042270 AC083945 AJ298990	41 ABO48713 AF263457 AP001168 AF067400 AF067401	48 X89226 AF197947 AF244888 AF244890	AF24489 AF197946 AF053127 AJ250467 U77888 AP000391	AF000539 AF172282 U37133 U72723 U72724 AB029327 U77888	49 072725
SEQ ID NO. BAB20583.1 AAK13126.1 CAC09578.1	SEQ ID NO. BAB39155.1 AAG13663.1 BAA90816.1 AAC98090.1	SEQ ID NO. CAA61510.1 AAF59906.1 AAF91322.1	AAF51323.1 AAF59905.1 AAC36318.1 CAC20842.1 AAB36558.1 BAA83373.1	AAC49123.1 AAC49123.1 AAC80225.1 AAB82755.1 AAB82756.1 BAA88636.1 AAG52992.1 AAB82753.1	SEQ ID NO. AAB82755.1
Tulipa gesneriana Tulipa gesneriana Tulipa gesneriana	Oryza sativa Triticum turgidum subsp. durum Mesembryanthemum crystallinum Spinacia oleracea Brassica napus Triticum aestivum	Brassica rapa Picea mariana Brassica oleracea var.	oryza sativa Oryza sativa Oryza sativa Oryza sativa Ricinus communis Spinacia oleracea	Nicotiana sylvestris Pisum sativum Vigna radiata Spinacia oleracea Zea mays Oryza sativa	Oryza sativa
4 AF283707 AF283708 AF283706	12 AB053294 AJ001903 AF069314 X14959 AF018174 AF286593	AB010434 AF051206 AF273844	039379 026547 021836 092541 270677 X51463	13 D16247 AF271892 AF15667 X99937 AF079782 AB042643	17 D86925
SEQ ID NO. AAG14455.1 AAG14456.1 AAG14454.1	SEQ ID NO. BAB20886.1 CAA05081.1 AAC19392.1 CAA33082.1 AAC04671.1	BAA25681.1 AAC32111.1 AAG35777.1 alboglabra	AABSJ894.1 BAA05546.1 BAA04864.1 AABS1522.1 CAA94534.1 CAA35827.1	SEQ ID NO. BAA03763.1 AAF75791.1 AAF40306.1 CAA68193.1 AAD20980.1 BAA95704.1	SEQ ID NO. BAA13181.1

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and and and and and and and and	sica sica sica sica sica sica nays eolus ilana sati sati sati sati	Oryza sativa Oryza sativa Phaseolus vulgaris Brassica napus
U20948 X12531 X98520 AB000970 AB032473 AJ245479 M97667 AB032474 X18260 Z18921 D88193 U00443	Y14286 Y18259 M76647 D38564 D38563 ABD54061 U82481 AF078082 AF172282 AF172282 AF172282 AF17288 AF244888 AF244889 AF244889 AF244889 AF244889 AF244889 AF244889 AF24699 AF197946 AF197946	AF1/2282 L27821 AF078082 AY007545
AAC23542.1 CAA73134.1 CAA67145.1 BAA23676.1 BAA92836.1 CAB89179.1 AAA33008.1 BAA92837.1 CAB41879.1 CAA79355.1 BAA06285.1 BAA62232.1 CAA74662.1		AAA33915.1 AAD21872.1 AAG16628.1
Oryza sativa Oryza sativa Oryza sativa Pinus sylvestris Oryza sativa Oryza sativa Oryza sativa Oryza sativa Glycine max Malus x domestica Glycine max	Oryza sativa Oryza longistaminata Nicotiana tabacum Ipomoea nil Daucus carota Glycine max Panax ginseng Glycyrrhiza glabra Glycyrrhiza glabra Nicotiana tabacum Capsicum annuum Solanum tuberosum Nicotiana benthamiana Artemisia annua Zea mays Oryza sativa Nicotiana tabacum Botryococcus braunii Citrus sinensis Artemisia annua Botryococcus braunii	Brassica oleracea Brassica oleracea
U37133 U72723 AF172282 AJ250467 AP000391 AP000559 U72724 AF244889 AF244889 AF197946 AF197946 AF197946	L X89226 X89226 AB029327 U77888 U93048 50 AB010148 D86410 D86410 D86409 U60057 AF124842 AB02599 U46000 AF302464 AB007502 AB007501 AF205791 AF205790 AF205790	.1 Y12530 Y14285
AAC49123.1 AAC80225.1 AAF34426.1 CAC20842.1 BAA83373.1 BAA83373.1 BAAB3756.1 AAB82756.1 AAF91323.1 AAC36318.1 AAC36318.1 AAC36318.1 AAC36318.1 AAC36318.1 AAC36318.1 AAC36318.1 AAC36318.1 CAAC36318.1 CAAC36318.1 CAAC36318.1	AAB82753.1 BAA88636.1 AAB61708.1 SEQ ID NO. BAA22559.1 BAA22559.1 BAA13084.1 BAA22559.1 BAA22659.1 AAB08578.1 AAB08578.1 AAB20626.1 BAA22558.1 BAA22558.1 BAA22558.1 BAA22558.1 AAB02945.1 AAB02945.1 AAF71269.1 AAF71269.1	

	193		
Gossypium hirsutum Cicer arietinum Spirodela polyrrhiza Nicotiana tabacum Glycine max Oryza sativa	Brassica napus Oryza sativa Catharanthus roseus Oryza sativa Brassica napus Populus nigra Lophopyrum elongatum Lophopyrum elongatum Brassica oleracea Populus nigra Oryza sativa Zea mays	Lycopersicon escurencum Glycine max Zea mays Nicotiana tabacum Glycine max Lycopersicon esculentum Lycopersicon esculentum Brassica oleracea Brassica oleracea Phaseolus vulgaris Oryza sativa Nicotiana tabacum Lycopersicon hirsutum Lycopersicon hirsutum Brassica oleracea	Phaseolus vulgaris Glycine max Glycine max Daucus carota
AF216497 AB024992 270524 56 AF142596 AF244890	AY028699 AB023482 273295 AC073405 AY007545 AB041503 AF131222 AF339747 Y12531 AB041504 L27821 U67422	DC28007 AF249318 U82481 AF302082 AF249317 AF220603 U59316 Y14285 Y14285 AF078082 AF0718490 AF318493 Y12530	57 AF285172 AF197946 AF197947 U93048
AAF23176.1 BAA76420.1 CAA94437.1 SEQ ID NO. S AAF66615.1 AAF91324.1	AAK21965.1 BAA78764.1 CAA97692.1 AAG03090.1 AAG16628.1 BAA94509.1 AAF43496.1 AAK11674.1 CAA73134.1 BAA94510.1 AAB09771.1	AAC61805.1 AAF91337.1 AAB93834.1 AAG25966.1 AAF91336.1 AAF76313.1 AAB47421.1 CAA74662.1 CAA74661.1 AAD21872.1 BAA92954.1 BAA92954.1 AAK11569.1 CAA73133.1	SEQ ID NO. AAG00510.1 AAF59905.1 AAF59906.1 AAF59906.1
Populus nigra Populus nigra Ipomoea nil Lophopyrum elongatum Lophopyrum elongatum Oryza sativa	Brassica napus Rauvolfia serpentina Brassica nigra Prunus serotina Costus speciosus Prunus avium Manihot esculenta Dalbergia cochinchinensis Zea mays Catharanthus roseus Manihot esculenta	Polygonum tinctorium Avena satlva Secale cereale Sorghum bicolor Cucurbita pepo Avena satlva Zea mays Aminot esculenta Trifolium repens Hordeum vulgare	Musa acuminata Brassica napus Oryza sativa Cicer arietinum
AB041503 AB041504 U77888 AF339747 AF131222 AP001551	54 X82577 AF149311 U72154 AF221526 D83177 U39228 S35175 AF163097 AF112888	α ο σ ο π · -	AF321287 221977 U28047 AJ005950
BAA94509.1 BAA94510.1 AAG52994.1 AAK11674.1 AAF43496.1 BAA92954.1 BAA78764.1	SEQ ID NO. 5 CAA57913.1 AAF03675.1 AAF34650.1 BAA11831.1 AAB22166.1 AAB22162.1 AAB22162.1 AABC2162.1 AAF28800.1	CAA6442.1 BAA78708.1 AAD02839.1 AAG00614.1 AAG25897.1 CAA55196.1 AAD10503.1 AAA65946.1 AAB03266.1 CAA52293.1 AAC69619.1 CAA40058.1 AAB71381.1 CAA40057.1	AAK07429.1 CAA79989.2 AAA84906.1 CAC08209.1 SEO ID NO.

ID NO. 55

AAC36318.1 AAK21965.1 AAF91324.1	AF053127 AY028699 AF244890	Malus x domestica Brassica napus Glycine max	BAA21673.1 AAB41817.1 AAA33479.1	AB006033 M58365 M60526	Allium cepa Medicago sativa Zea mays
AAF91323.1	AF244889		CAA73997.1	Y13646	Petunia x hybrida
CAA9/692.1 CAA61510.1	2/3295 X89226	Catnarantnus roseus Oryza sativa	EAA19553.1 CAA66234.1	D64036 X97638	Oryza satıva Antirrhinum majus
AAF91322.1	AF244888	Glycine max	AAD30506.1	AF129886	Vigna radiata
AAK11569.1	AF318493	Lycopersicon hirsutum	CAA41172.1	X58194	Oryza sativa
CAB51834.1	69000	Oryza sativa	AAD08721.1	AF038570	Dunaliella tertiolecta
•	AF220602		CAC15504.1	AJ297917	Lycopersicon esculentum
AAB47424.1	059317	con	AAG01533.1	AF289466	
AAK11566.1	AF318490		AAG01532.1	AF289465	Nicotiana tabacum
AAB47423.1	059315	con	CAC15503.1	AJ297916	Lycopersicon esculentum
AAC48914.1	U02271	Lycopersicon pimpinellifolium	CAA66236.1	X97640	Antirrhinum majus
AAF76306.1	AF220602	Lycopersicon pimpinellifolium	CAC17703.1	AJ278885	Chenopodium rubrum
AAF76313.1	AF220603	Lycopersicon esculentum	BAB18271.1	AB035141	Chlamydomonas reinhardtii
AAB47421.1	059316	Lycopersicon esculentum	CAB37188.1	AJ224336	Medicago sativa
AAG03090.1	AC073405	Oryza sativa	CAA47099.1	X66469	Medicago sativa
AAA33915.1	L27821	Oryza sativa	AAB41548.1	L07042	Medicago sativa
AAF76314.1	AF220603	Lycopersicon esculentum			19
AAK11568.1	AF318492	Lycopersicon hirsutum		09	
AAB47422.1	059318	Lycopersicon esculentum	BAA94962.1	AB042103	Asparagus officinalis
BAA06538.1	D31737	Nicotiana tabacum	AAF63027.1	AE244924	Spinacia oleracea
AAK11567.1	AF318491	Lycopersicon hirsutum	BAA92500.1	AP001383	Oryza sativa
•	AF172282	Oryza sativa	AAF63026.1	AF244923	Spinacia oleracea
AAG25966.1	AF302082	Nicotiana tabacum	AAF63025.1	AF244922	Spinacia oleracea
			CAA62615.1	X91232	Mercurialis annua
	59		BAA92422.1	AP001366	Oryza sativa
CAA96385.1	271703	Beta vulgaris	BAA92497.1	AP001383	Oryza sativa
BAA33152.1	AB008187	Pisum sativum	AAD43561.1	AF155124	Gossypium hirsutum
CAA66233.1	X97637	Antirrhinum majus	BAA82306.1	AB027752	Nicotiana tabacum
AAA92823.1	U18365	Brassica napus	CAA66037.1	X97351	Populus balsamifera subsp.
CAA76701.1	X17226	Lycopersicon esculentum	trichocarpa		
AAG01534.1	AF289467	Nicotiana tabacum	AAD37430.1	AF149280	Phaseolus vulgaris
AAC41680.1	L34206	Petroselinum crispum	CAB65334.1	AJ250121	Picea abies
CAA61581.1	X89400	Vigna unguiculata	BAA77389.1	AB024439	Scutellaria baicalensis
CAA50038.1	X70707	Medicago sativa	BAA06334.1	D30652	Populus kitakamiensis
CAA71242.1	X10160	Chenopodium rubrum	CAA71492.1	X10466	Spinacia oleracea
AAA34241.1	M99497	Vigna aconitifolia	CAA66034.1	X97348	Populus balsamifera subsp.
CAA76700.1	X17225	Lycopersicon esculentum	trichocarpa		
CAA99991.1	275661	Sesbania rostrata	BAA06335.1	D30653	Populus kitakamiensis

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Cicer arietinum	Pisum sativum	Persea americana	Petunia x hybrida	Eschscholzia californica	Petunia x hybrida	Glycine max	Nicotiana tabacum	Glycine max	Glycyrrhiza echinata	Glycyrrhiza echinata	Pisum sativum	Glycine max	Torenia hybrida	Glycine max	Nicotiana tabacum	Cicer arietinum	Asparadus officinalis	•		Vigna unguiculata	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Castanea crenata	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare subsp.		Hordeum vulgare	Trifolium repens	Ipomoea batatas	Medicago sativa	Glycine max	Glycine max	Calystegia sepium	Triticum aestivum	Oryza sativa
AJ249800	U29333	M32885	AF155332	AF014802	AB006790	D83968	X96784	AF022458	AB001380	AB022733	AF218296	D86351	AB028152	AF135485	X95342	AJ249801	AB037245		62	AJ225087	X52321	AF300799	AE061203	AF300800	AB048949	AF353207	D21349	D49999	AF061204		AJ301645	AF049098	D12882	AF026217	D50866	AB004271	AF284857	X98504	L10345
CAB56742.1	AAC49188.2	AAA32913.1	AAD56282.1	AAC39454.1	BAA92894.1	BAA12159.1	CAA65580.1	AAB94587.1	BAA22423.1	BAA74466.1	AAG44132.1	BAA13076.1	BAA84072.1	AAD38930.1	CAA64635.1	CAB56743.1	BAB40324.1		SEQ ID NO.	CAA12395.1	CAA36556.1	AAG25637.1	AAC67245.1	AAG25638.1	BAB39391.1	AAK30294.1	BAA04815.1	BAA08741.1	AAC67246.1	spontaneum	CAC16789.1	AAD04259.1	BAA02286.1	AAD04188.1	BAA09462.1	BAA20453.1	AAG44882.1	CAA67128.1	AAA33898.1
Ipomoea batatas . Medicaco sativa	Armoracia rusticana	Stylosanthes humilis	Populus balsamifera subsp.		Populus nigra	Populus nigra		Linum usitatissimum	Populus balsamifera subsp.		Phaseolus vulgaris	Arachis hypogaea	Nicotiana tabacum	Medicago sativa	Nicotiana tabacum	Oryza sativa	Armoracia rusticana	Glycine max	Spinacia oleracea	Medicago sativa	Lycopersicon esculentum	Lycopersicon esculentum	Oryza sativa	Oryza sativa	Populus kitakamiensis	Triticum aestivum	Glycine max	Scutellaria baicalensis			Cicer arietinum	Lotus japonicus	Glycyrrhiza echinata	Glycyrrhiza echinata	Cicer arietinum	Cicer arietinum	Helianthus tuberosus	Helianthus tuberosus	Glycine max
AJ242742 X90693	D90115	L37790	X97350		D83224	D83225	D38051	AF049881	X97349		AF149277	M37636	J02979	X90694	D11396	AP001551	X57564	AF007211	X10467	X90692	X71593	X19023	AF014468	D49551	D11102	X85230	AF014502	AB024438		61	AJ239051	AB025016	AB022732	AB001379	AJ012581	AJ238439	AJ000478	AJ000477	AF022461
CAB94692.1	BAA14143.1	AAB02554.1	CAA66036.1	trichocarpa	BAA11852.1	BAA11853.1	BAA07241.1	AAC05277.1	CAA66035.1	trichocarpa	AAD37427.1	AAB06183.1	AAA34108.1	CAA62227.1	BAA01992.1	BAA92967.1	CAA40796.1	AAC98519.1	CAA71493.1	CAA62225.1	CAA50597.1	CAB67121.1	AAC49819.1	BAA08499.1	BAA01877.1	CAA59487.1	AAB97734.1	BAA77388.1			CAB43505.1	BAA93634.1	BAA74465.1	BAA22422.1	CAA10067.1	CAB41490.1	CAA04117.1	CAA04116.1	AAB94590.1

Oryza sativa subsp. jap. Brassica napus Zea mays Brassica oleracea Daucus carota Ipomoea trifida Phaseolus vulgaris Brassica oleracea Brassica rapa Brassica rapa	Brassica oleracea Lycopersicon esculentum Lycopersicon esculentum Oryza sativa Brassica oleracea Oryza sativa Brassica napus Brassica rapa Oryza sativa Gryza sativa Brassica rapa Oryza sativa Gryza sativa Glycine max Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica rapa	Brassica napus Brassica napus Catharanthus roseus Lycopersicon esculentum Oryza sativa Triticum aestivum
	L 218921 AF220603 U59316 00069 AP001800 X18260 AP01800 M97667 AJ245479 AB0023482 AC073405 AF068135 Y14286 AB032474 X98520 Y12530 D38564 AY007545 D38563 AF001551 AF142596 AB041503	66 X83922 X83921 AY027510 X74942 U04295 M28704
AAF43408.1 AAK21965.1 AAB93834.1 CAA73134.1 AAB61708.1 AAC23542.1 AAD21872.1 CAB41878.1 BAA21132.1 BAA21132.1		SEQ ID NO. 6 CAA58774.1 CAA58773.1 AAK14790.1 CAA52896.1 AAC49556.1 AAA34293.1
Oryza sativa Ipomoea batatas Zea mays Zea mays Triticum aestivum Secale cereale Oryza sativa Prunus armeniaca Hordeum vulgare Hordeum vulgare Secale cereale	Oryza sativa Nicotiana tabacum Vitis vinifera Medicago truncatula Vitis vinifera Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Picea abies Oryza sativa Chlorella kessleri Chlorella kessleri Chlorella kessleri Lycopersicon esculentum Beta vulgaris Lycopersicon esculentum Solanum tuberosum Nicotiana tabacum Spinacia oleracea Zea mays Apium graveolens var. dulce	Lycopersicon esculentum Lycopersicon esculentum Populus nigra
AAA33899.1 L10346 BAA00828.1 D01022 AAD15902.1 AF068119 CAA76131.1 Y16242 CAA77817.1 Z11772 BAA92921.1 AP001539 AAD38148.1 AF139501 AAB64177.1 AF012345 BAA09793.1 D63574 CAA40105.1 X56785	SEQ ID NO. 63 BAB19864.1 AB052885 CAA47324.1 X66856 CAA04511.1 AJ001061 AAB06594.1 U38651 CAA7077.1 Y09590 BAB19863.1 AB052884 CAA09419.1 AJ132224 CAA09419.1 AJ132224 CAA09419.1 AJ132224 CAA09679.1 Z83829 BAB19862.1 AB052883 CAA39036.1 X75440 CAA53192.1 X75440 CAA53192.1 X75440 CAA53192.1 X75440 CAA53192.1 AJ132223 AAD55054.1 AF173655 CAA5366.1 AJ132225 AAF74566.1 AF215853 AAF74566.1 AF215853 AAF74568.1 AF215853	AAF13299.1 AF181496 AAB38743.1 U80583 SEQ ID NO. 65 BAA82556.1 AB030083

																			19	7																				
				Solanum tuberosum	Adiantum raddianum	Adiantum raddianum	Oryza sativa	Secale cereale	Secale cereale	Oryza sativa	Glycine max	Glycine max	Lycopersicon esculentum	Lolium temuleritum	Oryza sativa	Avena sativa	Hordeum vulgare	Hordeum vulgare	Triticum aestivum	Petunia x hybrida	Glycine max	Glycine max	Oryza sativa	Glycine max	Oryza sativa	Oryza sativa	Oryza sativa	Nicotíana tabacum				Nicotiana tabacum	Nicotiana tabacum	Lycopersicon esculentum	Antirrhinum majus	Gossypium hirsutum		,	Sorghum bicolor	Sorghum bicolor
Ç	89	AF122051	AF122052	AF122053	AF190303	AF190304	AF172282	AF190302	AF190301	Y11414	AB029160	AB029159	X98308	AF114162	D88621	AJ133638	X87690	AX008692	AB044084	Z13998	AB029161	AB029162	X11415	AB029165	X11350	AC037425	X98355	AF198499	AB028650	AF198498	213997	U72762	AB028651	X99134	AJ006292	AF336283		70	Y12464	Y12465
		AAG08959.1	AAG08960.1	AAG08961.1	AAF67052.1	AAF67053.1	AAF34434.1	AAF67051.1	AAF67050.1	CAA72217.1	BAA81731.1	BAA81730.1	CAA66952.1	AAD31395.1	BAA23341.1	CAB40189.1	CAA61021.1	AAG22863.1	BAA96421.1	CAA78388.1	BAA81732.1	BAA81733.2	CAA72218.1	BAA81736.1	CAA72185.1	AAG13574.1	CAA67000.1	AAG28526.1	BAA88222.1	AAG28525.1	CAA78387.1	AAB41101.1	BAA88223.1	CAA67575.1	CAB43399.1	AAK19616.1			CAA73067.1	CAA73068.1
	Catharanthus roseus	Petroselinum crispum	Zea mays	Petroselinum crispum	Oryza sativa	Brassica napus	Nicotiana tabacum	Zea mays	Triticum aestivum	Petroselinum crispum	Sinapis alba	Catharanthus roseus	Nicotiana tabacum	Raphanus sativus	Triticum aestivum	Lycopersicon esculentum	Glycine max	Triticum aestivum	Triticum aestivum	Triticum aestivum	Oryza sativa			Ricinus communis	Vicia faba	Ricinus communis	Nepenthes alata	Solanum tuberosum	Nepenthes alata	Solanum tuberosum	Ricinus communis	Nepenthes alata	Vicia faba		Vicia faba	Vicia faba	Nicotiana sylvestris	Nicotiana sylvestris	Oryza sativa	Chlorella protothecoides
X74941	AF084972	X10809	U10270	X10810	U42208	X83920	248602	Y15165	D64051	046217	X16953	AF084971	248603	X92102	007933	X74943	L01449	M63999	010466	010467	004297		67	AJ132228	X09591	AJ007574	AF080543	Y09826	AF080544	X09825	268759	AF080542	AF061435	X11121	AF061434	AF061436	064823	U31932	AB022783	AJ238635
CAA52895.1	AAD42938.1	CAA71768.1	AAA80169.1	CAA71770.1	AAB40291.1	CAA58772.1	CAA88492.1	CAB62402.1	BAA10928.1	AAC49398.1	CAA76555.1	AAD42937.1	CAA88493.1	CAA63073.1	AAA17488.1	CAA52897.1	AAB00098.1	AAA68429.1	AAA19103.1	AAA19104.1	AAC49558.1	•	SEO ID NO.	0608.1	CAA70778.1	CAA07563.1	AAD16014.1	CAA70969.1	AAD16015.1	CAA70968.1	CAA92992.1	AAD16013.1	AAF15945.1	CAA72006.1	AAF15944.1	AAF15946.1	AAB96830.1	AAB48944.1	BAA93437.1	CAB42599.1

BAA83688.1	AB011967	Oryza sativa	AAA33917.1	L36320	Oryza sativa
BAA96628.1	AP002482	Oryza sativa	AAC14464.1	L19435	Oryza sativa
AAB62693.1	AE004947	Oryza sativa	BAA00799.1	D00999	Oryza sativa
AAF22219.1	AF141378	Zea mays	AAA33659.1	M63003	Pisum sativum
BAA83689.1	AB011968	Oryza sativa	AAD48484.1	AF170297	Manihot esculenta
BAA34675.1	AB011670	Triticum aestivum	CAB60191.1	AJ250667	Ananas comosus
AAF66639.1	AF143743	Lycopersicon esculentum	CAA51654.1	X73139	Ipomoea batatas
AAD23582.1	AF128443	Glycine max	CAA39444.1	X55974	Nicotiana plumbaginifolia
CAA71142.1	X10036	Cucumis sativus	AAB40394.1	080069	Mesembryanthemum crystalli
BAA05649.1	D26602	Nicotiana tabacum	AAK06837.1	AF328859	Avicennia marina
CAA57898.1	X82548	Hordeum vulgare	CAA60826.1	X87372	Lycopersicon esculentum
AAC99329.1	AF062479	Oryza sativa	AAB49913.1	U34727	Zea mays
CAA65244.1	X95997	Solanum tuberosum	CAB57993.1	X17564	Zea mays
CAA07813.1	AJ007990	Hordeum vulgare	CAA05633.1	AJ002604	Pinus sylvestris
	X65606	Hordeum vulgare	AAD01605.1	AF016893	Populus tremuloides
AAB52224.1	U83797	Solanum tuberosum	AAK26435.1	AE354748	Solanum tuberosum
CAA46554.1	X65604	Hordeum vulgare	AAB92612.1	AF037359	Paulownia kawakamii
AAB05457.1	US5768	Oryza sativa	AAB66812.1	AF009734	Capsicum annuum
AAD00239.1	U73938	Nicotiana tabacum	AAD01604.1	AF016892	Populus tremuloides
	AJ005373	Craterostiqma plantagineum	CAA10160.1	AJ012739	Cicer arietinum
AAB68962.1	L38855	Glycine max	CAA10132.1	AJ012691	Cicer arietinum
BAA13608.1	D88399	Oryza sativa	AAA34194.1	и37150	Lycopersicon esculentum
AAG60195.1	AC084763	Oryza sativa	CAA32199.1	X14040	Lycopersicon esculentum
BAA19573.1	AB002109	Oryza sativa	BAA19674.1	D49485	Solidago canadensis
AAD00240.1	073939	Nicotiana tabacum	AAD05576.1	AF009735	Raphanus sativus
CAA81443.1	226846	Mesembryanthemum crystallinum	CAA73929.1	X13610	Carica papaya
AAB58348.1	029095	Triticum aestivum	CAA37866.1	X53872	Spinacia oleracea
•	249233	Chlamydomonas eugametos	AAC08581.1	AF054150	Zantedeschia aethiopica
	AF186020	Vicia faba	CAA65043.1	X95728	Brassica juncea
AAA96325.1	M94726	Triticum aestivum	AAC25568.1	AF071112	Brassica rapa subsp. pekinensis
AAC98509.1	AF100162	Chlamydomonas reinhardtii	BAB21760.1	AB026724	Oryza sativa
		·	BAA12745.1	D85239	Oryza sativa
SEQ ID NO.	71		CAA65041.1	x95726	Brassica juncea
AAC04614.1	AF034832	Mesembryanthemum crystallinum	BAA01088.1	D10244	Spinacia oleracea
CAA41454.1	X58578		BAA24919.1	AB004870	Marchantia paleacea
AAC14465.1	L19434	Oryza sativa	AAA33728.1	M20792	Petunia x hybrida
BAA00800.1	D01000	Oryza sativa			
AAA33510.1	M54936	Zea mays		72	
AAB87572.1	AF034630	Panax ginseng	CAA73067.1	Y12464	Sorghum bicolor
CAC34448.1	AJ307586	Pinus sylvestris	CAA73068.1	Y12465	Sorghum bicolor
CAB57992.1	X17565	Zea mays	BAA96628.1	AP002482	Oryza sativa

ניסטיכטייים	99011084	Orvza sativa	CAA95859.1	271276	Mangifera indica
•	790110ar	Orvza sativa	CAA55865.1	X79278	Medicago sativa
BAABSBBB.1	ABOLLSO.	7776	BAA02111.1	D12543	Pisum sativum
AAF22219.1	AE1413/8	sed mays	CAA89049.1	249190	Beta vulgaris
BAA346/5.1	ABOLLO / O	TITCICIN GCOCTON	CAA98179.1	273951	Lotus japonicus
AAB62693.1	J'	OLYZA SALIVA Niootiono tohocim	BAA02437.1	D13152	Oryza sativa
BAA05649.1	77997	NICOLIANA CADACAM	CAA98177.1	273949	Lotus japonicus
CAA71142.1	•	Cucunts sactives	BAA06701.1	D31905	Zea mays
AAD23582.1	AF128443	CLYCINE Max	AAR97114.1	U58853	Glycine max
	X95997	Solanum tuberosum	BAA06702.1	D31906	Zea mays
CAA57898.1	X82548	hordeum vargare	CAA67153.1	X98540	Fagus sylvatica
AAC99329.1	AE062479	Uryza saciva	BAA02110.1	D12542	Pisum sativum
CAA07813.1	AJU0/990	nordemm vnlgare	CAA41966.1	X59276	Oryza sativa
CAA46554.1	#0000V	entito entito	BAA02109.1	D12541	Pisum sativum
AAB05457.1	00/000	ULYZO SOLIVO	BAA84640.1	AB007911	Pisum sativum
CAA46556.1	30000x	nordedul varyard	CAA98185.1	273957	Lotus japonicus
AAB58348.1	029093	ontonotime plantaginess	CAA98186.1	273958	Lotus japonicus
CAA06503.1	AJ005373	Craceroscryma prancagricem	CAA98182.1	273954	Lotus japonicus
AAA96325.1	M94726	Tricicum descrives and prime and pri	AAD48018.1	AF165095	Gossypium hirsutum
CAA81443.1	226846	+2520000	CAA98183.1	273955	Lotus japonicus
AAD00239.1	0/3938	NICOLIANA LADACAM		AF165096	Gossypium hirsutum
BAA13608.1	D88399	Cryza sattva	CAA54506.1	X77301	Glycine max
AAB68962.1	L38855	GLYCINE MAX	Cap98178.1	273950	Lotus japonicus
AAG60195.1	AC084763	Oryza sativa	BAA02108.1	D12540	Pisum sativum
BAA19573.1	AB002109		AAA34253.1	1,08130	Volvox carteri
CAA89202.1	249233	Chlamydomonas eugameros	1.002£01417 1.73189447	273937	Lotus japonicus
AAD00240.1	u73939	Nicotiana tabacum	CAMBOIGS.I	132185	Glycine max
AAF27340.1	AF186020	Vicia faba	AAAA0200.1	007700	
AAC98509.1	AF100162	Chlamydomonas reinhardtii	AAA63902.1	U22433	sea mays
4	Ç.		SEQ ID NO.	75	
SEQ ID NO.	7,0000	Solenim filherosim	CAA52069.1	X73849	Brassica napus
CAASUZBZ.1	יי היי היי		CAA52070.1	X73850	Brassica napus
CIV CIT	77		CAA61111.1	X87842	Brassica napus
SEC ID NO.	71227417	Orvza sativa	AAC49002.1	017098	Brassica rapa
AANLO/03.L	712758		AAA33020.1	M96569	Carthamus tinctorius
1.80630448	D12545		AAB51523.1	092876	Garcinia mangostana
DAMOSTIC.	712546		AAG35064.1	AF318288	Capsicum chinense
BANCIL4.1	016046		AAA33019.1	M96568	Carthamus tinctorius
CAMBOLOU.I	200010		AAB51524.1	U92877	Garcinia mangostana
BAA02112.1	73057		AAG43859.1	AF213478	Iris germanica
CAASSISI.	273956		AAD28187.1	AF110462	Elaeis guineensis
CAASOLOS.L	202013				1

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CAC14164.1	AJ278479	Brassica juncea	BAA02112.1	D12544	
AAD338/0.1	AE141382	Elacis olellera	AAK15703 1	273936 AF327517	Druza satiwa
AAB51525.1	Af 143033 U92878	Garcinia mandostana	BAA02904.1	D13758	
•	X76561	Cuphea lanceolata	BAA02111.1	D12543	Pisum sativum
AAB71729.1	U65642	Myristica fragrans	BAA02113.1	D12545	Pisum sativum
AAF02215.1	AF076535	Gossypium hirsutum	CAA98180.1	273952	Lotus japonicus
AAD01982.1	AF034266	Gossypium hirsutum	BAA02114.1	D12546	Pisum sativum
AAG43858.1	AF213477	Iris germanica	CAA98181.1	273953	Lotus japonicus
BAA83582.1	AP000399	Oryza sativa	CAA95859.1	271276	Mangifera indica
	AF213479	Iris tectorum	CAA55865.1	X79278	Medicago sativa
AAG43857.1	AF213476	Iris germanica	CAA89049.1	249190	Beta vulgaris
AAC49783.1	U56103	Cuphea wrightii	CAA98179.1	273951	Lotus japonicus
AAG43861.1	AF213480	Iris tectorum	BAA02437.1	D13152	Oryza sativa
CAC19934.1	AJ131741	Cuphea lanceolata	BAA06701.1	D31905	Zea mays
CAB60830.1	AJ131740	Cuphea lanceolata	BAA06702.1	D31906	Zea mays
AAC49784.1	U56104	Cuphea wrightii	BAA02110.1	D12542	Pisum sativum
AAD42220.1	AF147879	Elaeis guineensis	CAA98177.1	Z73949	Lotus japonicus
AAC49151.1	U31813	Cinnamomum camphora	CAA41966.1	X59276	Oryza sativa
AAC49001.1	U17097	Umbellularia californica	AAB97114.1	U58853	Glycine max
CAA06001.1	AJ003221	Solanum tuberosum	CAA98185.1	273957	Lotus japonicus
			CAA67153.1	X98540	
	16		CAA98183.1	Z73955	Lotus japonicus
CAA47870.1	X67601	Lycopersicon peruvianum	CAA98182.1	273954	Lotus japonicus
CAA87076.1	246952	Glycine max	CAA54506.1	X77301	Glycine max
CAA47868.1	X67599	Lycopersicon esculentum	BAA02108.1	D12540	Pisum sativum
CAA47869.1	x67600	Lycopersicon peruvianum	AAD48018.1	AF165095	Gossypium hirsutum
CAA09300.1	AJ010643	Pisum sativum	BAA02109.1	D12541	
AAE74563.1	AF208544	Lycopersicon peruvianum	CAA98186.1	273958	Lotus japonicus
•	AJ010644	Pisum sativum	BAA84640.1	AB007911	Pisum sativum
BAA83711.1	AB014484	Nicotiana tabacum	AAD48019.1	AF165096	Gossypium hirsutum
CAA58117.1	X82943	2ea mays	CAA98178.1	273950	Lotus japonicus
AAE37579.1	AF235958	Medicago sativa	AAA63901.1	U22432	Zea mays
CAA87077.1	246953	Glycine max	CAA98165.1	273937	Lotus japonicus
CAA39034.1	X55347	Lycopersicon peruvianum	AAA34253.1	L08130	Volvox carteri
BAA83710.1	AB014483	Nicotiana tabacum	AAA90955.1	U32185	Glycine max
CAA87080.1	246956	Glycine max	AAA63902.1	U22433	Zea mays
CAA87079.1	246955	Glycine max			
CAA87075.1	246951	Glycine max	SEQ ID NO. 8	80 n=287113	
CE ON OT ORS	78		RAA93039.1	AB033758	Citrus unshin
, S	2		1.000		34110

D26573 Daucus carota AB028077 Physcomitrella patens AF145730 Oryza sativa	AB042714 Chlamydomonas reinhardtii	Mesembryanthen	_		Pisum	Oryza		_	Lycopersicon		43			X95997 Solanum tuberosum C		32	_	Kalanchoe		91		06		Oryza sativa	AF143505 Lycopersicon esculentum			AF028237 Ipomoea purpurea	AF190634 Nicotiana tabacum	X77369 Solanum melongena	AB027454 Petunia x hybrida	AB038248 Ipomoea batatas	53 Sorghum		D85186 Gentiana triflora
BAAO5622.1 D2 BAA93465.1 AB AAD37699.1 AE	SEQ ID NO. 82 BAB18104.1 AB		CAA50374.1 X7	7	_			 1			Ī										CAA46556.1 X		CAA46554.1 X		AAF66637.1 AI		83	AAB86473.1 AI	AAF61647.1 A	CAA54558.1 X	BAA89008.1 AI	BAA90787.1 A			BAA12737.1 D
Petunia x hybrida Nicotiana tabacum Verbena x hybrida Perilla frutescens	Perilla frutescens Zea mays	Sorghum bicolor Nicotiana tabacum			Nicotiana tabacum	Scutellaria baicalensis	Lycopersicon esculentum	Gentiana triflora	Dorotheanthus bellidiformis	Forsythia x intermedia	Solanum tuberosum	Perilla frutescens	Vitis labrusca x Vitis vinifera	Zea mays	Manihot esculenta	Phaseolus lunatus	Petunia x hybrida		Ipomoea batatas			Orvza sativa	Orvza sativa	Glycine max	Physcomitrella patens	Lycopersicon esculentum	Physcomitrella patens	Helianthus annuus	Physcomitrella patens	Prunus armeniaca	Daucus carota	Craterostioma plantagineum			Physcomitrella patens
AB027455 AF190634 AB013598 AB013596	AB013597 L34847	AF199453	1132643	AE346431	AF346432	AB031274	X85138	D85186	X18871	AF127218	U82367	AB002818	AB047090	X13500	X77461	AF101972	AB027454	AE028237	AB038248		18	AF139210	AF145729	AF184278	AB028075	X91212	AB028074	AF339748	PR028079	AF139497	n26578	A.T005833	AJ005820	AF145731	AB028076
BAA89009.1 AAE61647.1 BAA36423.1	BAA36422.1 AAA59054.1	AAF17077.1	AB36652 1	AAK28303.1		BAA83484.1	CAA59450.1	BAA12737.1	CAB56231.1	AAD21086.1	AAB48444.1	BAA19659.1	BAB41017.1	CAA31855.1	CAA54611.1	AAD04166.1	1.8000844		BA890787.1		S ON UT ORS		1.86375044	AAF01765.1	BAA93463.1	CAA62608.1	RAA93462.1	2 89153444	1.001C0ARA	1.10125744	1.710154A	1 8067247	CAA06717.1	AAD37700.1	BAA93464.1

Oryza longistaminata			Lycopersicon esculentum	Lycoporeicon pimpinellitol				Daucus carota			Ipomoea nil	Glycine max	Malus x domestica	Glycine max	Glycine max	Ipomoea nil	Oryza sativa	Oryza sativa	Glycine max 00		Daucus carota	Pinus sylvestris	Oryza sativa	Ipomoea nil	Oryza sativa	Nicotiana tabacum	Oryza longistaminata	Brassica napus	Brassica napus	Populus nigra	Populus nigra	Oryza sativa			Linum usitatissimum			Nicotiana tabacum	Prunus armeniaca	Mesembryanthemum crystallinum
072723	. 57/7/0	AF053997	AE 033994	AU002236	AE OCCUPAO		85	AB012708		98	U77888	AF197947	AF053127	AF244889	AF244890	077888	AP000391	AP000559	AF244888	AF197946	093048	AJ250467	X89226	077888	AF172282	AF142596	072725	AY028699	AY007545	AB041503	AB041504	AJ243961		87	AJ005340		88		AF071893	AF245119
AAC80225.1	AAB82/55.1	AAC/8595.1	AAC/8392.I	CAMO32/6.1	7.5600/000	;		BAA32827.1		SEQ ID NO. 8	AAG52992.1	AAF59906.1	AAC36318.1	AAF91323.1	AAE91324.1	AAB36558.1	BAA83373.1	BAA84787.1	AAF91322.1	AAF59905.1	AAB61708.1	CAC20842.1	CAA61510.1	AAG52994.1	AAF34426.1	AAF66615.1	AAB82755.1	AAK21965.1	AAG16628.1	BAA94509.1	BAA94510.1	CAB51836.1			CAA06486.1			CAC12822.1	AAC24587.1	AAF63205.1
Scutellaria baicalensis		Forsythia x intermedia	מ	NICOLIANA LADACUM	=	Nicotiana tabacum		Petunia x hybrida	Phaseolus lunatus	Zea mays	Zea mays	Phaseolus vulgaris	Zea mays	Nicotiana tabacum	Vitis labrusca x Vitis vinifera	Nicotiana tabacum	Dorotheanthus bellidiformis	Nicotiana tabacum	Lycopersicon esculentum	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera			Malus x domestica	Lycopersicon esculentum	Lycopersicon esculentum	Ipomoea nil	Oryza sativa	Oryza sativa	Hordeum vulgare	Oryza sativa	Lycopersicon esculentum	Oryza sativa
AB031274	X / /464	AF127218	AB033/38	032643	AF 20 / 143	AE346432	X07937	AB027455	AF101972	X13500	AF320086	AF116858	X07940	AB000623	AB047090	U32644	X18871	AF346431	X85138	AB047093	AB047095	AB047097	AB047099	AB047098	AF000371	AB047096	AF000372	AB047094		ヹ	AF053127	AF053995	AF053998	077888	AL117264	X89226	AF166121	AF172282	AF053993	U37133
BAA83484.1		AAD21086.1		AAB36632.1			CAA30760.1	BAA89009.1	AAD04166.1	CAA31855.1	AAK16410.1	AAD51778.1	CAA30761.1	BAA19155.1	BAB41017.1	AAB36653.1	CAB56231.1	AAK28303.1	CAA59450.1	BAB41020.1	BAB41022.1	BAB41024.1	BAB41026.1	BAB41025.1	AAB81682.1		AAB81683.1	BAB41021.1		SEQ ID NO. 8	AAC36318.1	AAC78593.1	AAC78596.1	AAB36558.1	CAB55399.1	CAA61510.1	AAD50430.1	AAF34426.1	AAC78591.1	AAC49123.1

Lycopersicon esculentum Lycopersicon esculentum	Zınnıa elegans Pinus taeda	Rumex palustris	Oryza sativa	Lycopersicon esculentum		Nicotiana tabacum	Triphysaria versicolor	Cicer arietinum	Eustoma grandiflorum	Lycopersicon esculentum		Regnellidium diphyllum	Oryza sativa	Festuca pratensis	Nicotiana tabacum	ica	Oryza sativa	mn	Cucumis sativus	Nicotiana tabacum	Lycopersicon esculentum			Nicotiana tabacum		Oryza sativa	Atriplex hortensis	Mesembryanthemum crystallinum			Catharanthus roseus	Oryza sativa	Oryza sativa	Picea abies			Prunus avium	Nicotiana tabacum
AF096776 AJ239068	AF230333 U64892	AF167360	U30477	AF184233	AF202119	AF049353	AE230278	AJ291816	AB049406	AF059489	AF247162	AF202120	AF247163	AJ276007	AF049350	AF291659	AP000837	AF049352	U30460	AF049351	AF184232		06	AJ299252	AF071893	AF193803	AF274033	AF245119	AB036883	AJ251250	AJ251249	AB023482	AP002526	AF253971		91	AE297522	AE049353
AAC64201.1 CAB43197.1	AAE35902.1 AAB40636.1	AAD49956.1	AAB38074.1	AAG32921.1	AAF17570.1	AAC96080.1	AAF32411.1	CAC19183.1	BAB32732.1	AAD13633.1	AAF62180.1	AAF17571.1	AAF62181.1	CAC06433.1	AAC96077.1	AAG01875.1	BAA88200.1	AAC96079.1	AAB37749.1	AAC96078.1	AAG32920.1			CAC12822.1	AAC24587.1	AAF23899.1	AAF76898.1	AAF63205.1	BAB16083.1	CAB96900.1	CAB96899.1	BAA78738.1	BAA99376.1	AAG32659.1		SEQ ID NO.	AAG13983.1	AAC96080.1
Nicotiana tabacum Nicotiana tabacum	Catharanthus roseus					Nicotiana tabacum		Nicotiana tabacum			Petunia x hvbrida			Brassica napus	Incoperation esculentum		Triphysaria versicolor	Lycopersicon esculentum				Prunus armeniaca	Prunus persica	Cucumis sativus	Zinnia elegans	Prunus armeniaca	Cicer arietinum	Prunus avium	Gossypium hirsutum	Fragaria x ananassa	O	Nicotiana tabacum	77	Pinus taeda	Pinus taeda	Triphysaria versicolor	Pinus taeda	Oryza sativa
AF211527 D38123	AJ251250	AU231249	AB03/183	AF193803	AF274033	DE057373	AR023482	AF211530	AF211531	AP002526	AF132001		σα	A.T000885	D.T243340	AF247164	AF230277	082123	A.T004997	AF059488	AF297521	093167	AB029083	030382	AF230332	AF038815	AJ291817	AF297522	AF043284	AF159563	AF230331	AF049354	064890	064891	AF085330	AF230276	U64893	U85246
AAG43545.1 BAA07321.1	CAB96900.1	CABSORSS.I	BABU3240.1	1.0001274	1 8685744	1.000013044	AAC02013.1	1.00.00.00.0	1.010000000	L ACCOUNT	1.07666744	:	S ON OT ORD	. ,	1.0050000	1.201020	APE 32410.1	AAC63088.1	C 17500447	1 2532 1 a a	AAG13982.1	AAC33529.1	BAB19676.1	AAB37746.1	AAE35901.1	AAC33530.1	CAC19184.1	AAG13983.1	AAC39512.1	AAF21101.1	AAF35900.1	1 . 180395 AA			AAD47901.1	AAE32409.1	AAB40637.1	AAB81662.1

Cucumis sativus	Nicotiana tabacum	Oryza sativa	Nicotiana tabacum	Striga asiatica	Nicotiana tabacum			Catharanthus roseus	Glycine max	Pisum sativum	Cicer arietinum	Glycine max	Phalaenopsis sp. SM9108	Antirrhinum majus	Glycyrrhiza echinata	Mentha x piperita	Pisum sativum		20	Chlamydomonas reinhardtii A	Oryza sativa			Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Dorotheanthus bellidiformis	Scutellaria baicalensis	Solanum tuberosum	Solanum berthaultii	Nicotiana tabacum	Manihot esculenta	Vitis vinifera	Vitis vinifera	Phaseolus lunatus	Vitis vinifera	Vitis vinifera	Brassica napus
U30460	AF049350	Y07782	AF049351	AF291659	AF049352		92	L19074	AF022457	249263	AJ239051	AF022458	034744	AB028151	AB001380	233875	AF175278		93	AF305070	AP002092		96	X85138	U32644	AF346431	U32643	AF346432	X18871	AB031274	U82367	AF006081	AF190634	X77462	AB047094	AB047092	AF101972	AB047096	AB047098	AF287143
AAB37749.1	AAC96077.1	CAA69105.1	AAC96078.1	AAG01875.1	AAC96079.1			AAA17732.1	AAB94586.1	CAA89260.1	CAB43505.1	AAB94587.1	AAB37231.1	BAA84071.1	BAA22423.1	CAA83941.1	AAG09208.1		SEQ ID NO.	AAG33228.2	BAA96166.1			CAA59450.1	AAB36653.1	AAK28303.1	AAB36652.1	AAK28304.1	CAB56231.1	BAA83484.1	AAB48444.1	AAB62270.1	AAF61647.1	CAA54612.1	BAB41021.1	BAB41019.1	AAD04166.1	BAB41023.1	BAB41025.1	AAF98390.1
Triphysaria versicolor	Triphysaria versicolor	Zinnia elegans		Pinus taeda	Pinus taeda	Lycopersicon esculentum	Cicer arietinum	Prunus avium	Pinus taeda	Pinus taeda	Prunus armeniaca	Fragaria x ananassa	Prunus persica	Pinus taeda	Nicotiana tabacum	Prunus armeniaca	ч	Lycopersicon esculentum		Lycopersicon esculentum	Oryza sativa	Rumex palustris	Cicer arietinum	Oryza sativa	Gossypium hirsutum		Eustoma grandiflorum	Marsilea quadrifolia	Lycopersicon esculentum	Festuca pratensis	Oryza sativa	Lycopersicon esculentum	Triphysaria versicolor	Lycopersicon esculentum	Oryza sativa	Striga asiatica	Oryza sativa	Lycopersicon esculentum	Regnellidium diphyllum	Brassica napus
AF230278	AF230276	AF230332	AF230333	AF085330	U64891	AF184233	AJ291817	AF297521	U64893	U64890	093167	AF159563	AB029083	064892	AF049354	AF038815	AJ239068	AE096776	U30382	AF059489	U85246	AF167360	AJ291816	AF247162	AF043284	U30477	AB049406	AF202119	AJ243340	AJ276007	AP000837	AF059488	AF230277	U82123	AF247164	AF291658	AF247163	AJ004997	AF202120	AJ000885
AAF32411.1	AAF32409.1	AAE35901.1	•	AAD47901.1	AAB40635.1	AAG32921.1	CAC19184.1	AAG13982.1	AAB40637.1	AAB40634.1	AAC33529.1	AAF21101.1	BAB19676.1	AAB40636.1	AAC96081.1	AAC33530.1	CAB43197.1	AAC64201.1	AAB37746.1	AAD13633.1	AAB81662.1	AAD49956.1	CAC19183.1	AAF62180.1	AAC39512.1	AAB38074.1	BAB32732.1	AAF17570.1	CAB46492.1	CAC06433.1	BAA88200.1	AAD13632.1	AAF32410.1	AAC63088.1	AAF62182.1	AAG01874.1	AAF62181.1	CAA06271.2	AAF17571.1	CAA04385.1

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Zea mays	Orvza sativa	Chlamydomonas reinhardtli	Chlamydomonas reinhardtii			Brassica napus	Oryza sativa	Spinacia oleracea	Lycopersicon esculentum						Phaseolus vulgaris	Zea mays	Zea mays	Oryza sativa	Oryza officinalis	Petunia x hybrida	Oryza australiensis	Oryza eichingeri	Tulipa gesneriana			Citrullus lanatus	Cucumis sativus	Medicago sativa	Oryza sativa	Brassica napus	Brassica napus	Brassica napus	Eucalyptus gunnii	Glycine max	Vitis vinifera	Medicago sativa	Medicago sativa	Pisum sativum
X96758	101 apono570	U19490	U19484		102	065890	AF009413	M87646	AE233745	•	103	AF260919	AF260918	018349	018348	AJ251719	AE061107	039860	039865	AF020545	U39863	039864	AF185269		104	M33148	L31900	AF020270	D85763	NJ242713	AJ242712	X92512	X78800	AF180335	AF195869	AF020271	AF020273	AF079850
CAA65533.1	SEQ ID NO.	AAA80586.1	AAA80216.1			AAB07452.1	AAB63591.1	AAB59307.1	AAF60293.1			AAG25928.1	AAG25927.1	AAC28907.1	AAB00686.1	CAB92300.1	AAD15818.1	AAC49219.1	AAC49216.1	AAC39455.1	AAC49212.1	AAC49213.1	AAD56411.1			AAA33041.1	AAC41647.1	AAB99754.1	BAA12870.1	CAB43995.1	CAB43994.1	CAA63268.1	CAA55383.1	AAD56659.1	AAF69802.1	AAB99755.1	AAB99757.1	AAC28106.1
		Vitis Vinitera		-	Vitis vinifera	Vitis labrusca x Vitis vinifera	Sorghum bicolor	Manihot esculenta	Petunia x hybrida	Citrus unshiu	Manihot esculenta	Petunia x hybrida	Perilla frutescens	Manihot esculenta			Solanum tuberosum	Solanum tuberosum	Spinacia oleracea	Spinacia oleracea	Solanum tuberosum	Orves sativa		Solanum tuberosum	Zea mavs	Allium tuberosum		Solanum tuberosum	Nicotiana tabacum	Orvza sativa	()	Cicer arietinum						Camptotheca acuminata
AF127218	AE000372 AB047090	AB047093	AB047033	AB047095	AF000371	AB047091	AF199453	X77461	AB027455	AB033758	X77459	S	AB002818	X77464	• • • •	66	DB029512	DE044173	AE 044113	77.177	AB0098	70787034	D28777	AB029511	X85803	AB040503	AE073695	AF044172	AJ299249	AL442113	n37963	A.T006024	AF073696	AF073698	DE195239	707001	100	U53345
AAD21086.1	AAB81683.1 BAB41017.1	BAB41020.1	BAB41026.1	BAB41022.1	AAB81682.1	BAB41018.1	AAE17077.1	CAA54611.1	BAA89009.1	BAA93039.1	CAA54609.1	1 80008 a a a	BAA19659.1	Cab54614.1	•	SEC TD NO.		1.2002ch	PARC 20030. I	1.25.00000		1.000cca**		•	CAB59798 1	BAA93051.1	AAD23907.1	AAC25635.1	CAC12819.1			C 91919 1	•	•	1.01619144		SEO ID NO.	AAB39510.1

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Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Oryza sativa Solanum tuberosum Oryza sativa Oryza sativa Nicotiana tabacum	Zea mays Nicotiana tabacum	Nicotiana tabacum Oryza sativa Oryza sativa	Daucus carota Chlamydomonas reinhardtii Pinus mugo Vigna radiata Cucumis sativus Marchantia paleacea	Pinus strobus Lycopersicon esculentum Lycopersicon esculentum Chloroplast Vigna radiata Lycopersicon esculentum	Apium graveolens Lens culinaris Zea mays Triticum aestivum Lens culinaris
U02494 U02496 U02497 U02495 AP000570 AP000492 U02498 AP000492 AP000570 U57350	111 U43034 112 Y10990 113	Y09506 Y18349 Y18349	AF207691 U36752 S63824 AF279251 D50085 AB007321	AF027356 AF243520 AF243522 AF126871 AF243524	116 Y12599 AF352251 X57077 D87064 .
AAA81889.1 AAA81891.1 AAA81890.1 BAA85201.1 BAA84626.1 AAA81893.1 BAA84627.1 BAA85202.1			SEQ 1D NO. AAE20949.1 AAB04951.1 AAC60560.2 AAF89208.1 BAA21089.1	AAB86734.1 AAF82471.1 AAF82475.1 AAD20020.1 AAF82474.1	SEQ ID NO. CAA73171.1 AAK29454.1 CAA40362.1 BAA25203.1
Glycine max Brassica napus Chlamydomonas reinhardtii Plastid Nicotiana tabacum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Cicer arietinum Glycine max Glycine max Glycine max	Medicago truncatula Medicago truncatula Botryococcus braunii Hordeum vulgare Oryza sativa Oryza sativa Hordeum vulgare	Zea mays Lycopersicon esculentum Lycopersicon esculentum Medicago sativa	Nicotiana tabacum Solanum tuberosum Oryza sativa Lycopersicon esculentum Zea mays Flaveria trinervia		Avena sativa Glycine max Glycine max Glycine max
AF068686 X89451 U40212 AJ006974 U42979 U40465 AJ275317 AF068687 AF068689	AFZ1/Z11 AFZ20497 U80676 M55684 D13817 AF353203 AC037425 M55685	AF007581 Y10602 Y08887 AF020272	AJZ99256 AF067859 AP001129 Y08888 Y10603 Z11754	105 AF305070 AP002092	AJ277210 107 D63781 X78547 X78548
AAC24855.1 CAA61621.1 AAA84971.1 CAB45387.1 AAD10324.1 AAB39506.1 CAB61751.1 AAC19244.1 AAC19136.1	AAKE 7629.1 AAE 38861.1 AAB 38970.1 AAA 62697.1 BAA 02971.1 AAK 26431.1 AAK 62696.1	AAB64290.1 CAA71611.1 CAA70100.1 AAB99756.1	CAC12826.1 AAC21564.1 BAA90618.1 CAA70101.1 CAA71612.1 CAA77808.1		

207	
Pimpinella brachycarpa Lycopersicon esculentum Lycopersicon esculentum Petunia x hybrida Antirrhinum majus Petunia x hybrida Nicotiana tabacum Lycopersicon esculentum Glycine max Glycine max Glycine max Nicotiana tabacum Oryza sativa Oryza sativa	Perunia x nybilda Oryza sativa Hordeum vulgare Zea mays Lycopersicon esculentum Zea mays Pimpinella brachycarpa Oryza sativa
AF161711 X99210 X99210 X95296 Z133996 AJ006292 Z133997 AB028652 U72762 AB028651 AB028651 AB028651 AB028651 AB028651 AB028651 AB029165 AB029160 AB029160 AB029160 AB029162	213996 X11415 X99973 M73028 X99210 AF210616 AF161711
	CAA78386.1 CAA72218.1 CAA68235.1 AAA33500.1 CAA67600.1 AAG36774.1 AAF22256.1 CAA72187.1
Pisum sativum Lens culinaris Nicotiana tabacum Lathyrus sativus Lathyrus sativus Lathyrus sativus Pisum sativum Triticum aestivum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lilium longiflorum Lilium longiflorum Lilium aestivum Volvox carteri Cicer arietinum Pisum sativum Volvox carteri Triticum aestivum Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum Colvox carteri Triticum aestivum Colvox carteri Triticum aestivum Colvox carteri Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum Colvox carteri Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum Triticum aestivum Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum Triticum aestivum Triticum aestivum Colvox carteri Triticum aestivum	Oryza sativa Cicer arietinum Betula pendula Nicotiana tabacum Panicum miliaceum Panicum miliaceum Panicum miliaceum
AF352247 AF352253 AB029614 AF352250 AF352249 AF352246 D87065 AF352248 AF352248 AF352248 AF352248 AF352248 AF352248 AF352248 AF006767 L29456 L07947 AF006767 L34578 AF107026 L07946 X559872 AF107022 AF107026 L07346 X59872 AF107028 AF1070346 AF1070346 AF1070346 AF1070346 AF1070346 AF1070346 AF107046 AF1070580 AF1070580 AF1070580 AF107066	AB016065 AJ275306 Y08499 AJ299250 D45075 D45074 D45073
	BAA31584.1 CAB61741.1 CAA69726.1 CAC12820.1 BAA08105.1 BAA08103.1 CAC27140.1

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Gossypium hirsutum Gossypium hirsutum Gossypium hirsutum	.	Lycopersicon esculentum	Oryza saciva	Treeseries can can outum		Uryza sativa	Hordeum vulgare	Pimpinella brachycarpa	Gossypium hirsutum	Hordeum vulgare	Hordeum vulgare	-	Citrus unshiu	Nicotiana tabacum	Nicotiana tabacum			Petunia x hybrida			Glycine max			Plastid Nicotiana tabacum			Phaseolus vulgaris			Medicago sativa	Oryza sativa			Nicotiana tabacum	Nicotiana tabacum	Petroselinum crispum	Petroselinum crispum
AF336285 AF336278 AF336286	AF336282	X95296	D88618	U8861/	X99134	X96/49	9/80/X	AF161711	AF336284	X70877	X70879	125	AB007818	M37152	AB041513		126	X07721		134	U63726	!	135	200044		136 	077935		137	AF084202	D38011		138	AB020023	AB041520	056834	AF121354
AAK19618.1 AAK19611.1 AAK19619.1	AAK19615.1	CAA64614.1	BAA23338.1	BAA2333/.1	CAA6/5/5.1	CAA65525.1	CAA50221.1	AAF22256.1	AAK19617.1	CAA50222.1	CAA50224.1		BAA92155.1	AAB02879.1	BAB16425.1			CAA68993.1			AAB26960.1			CAA77403.1			AAB36543.1		SEQ ID NO.	AAC77928.1	BAA07208.1		SEQ ID NO.	BAA77358.1	BAB16432.1	AAC49528.1	AAD27591.1
Antirrhinum majus Gossypium hirsutum Gossypium hirsutum	Oryza sativa		Hordeum vulgare	Oryza sativa	Gossypium hirsutum	Gossypium hirsutum	Oryza sativa	Oryza sativa	Gossypium hirsutum	Lycopersicon esculentum	Hordeum vulgare		Nicotiana tabacum	g		Petunia x hybrida	Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Glycine max	Glycine max	Glycine max	Glycine max	Oryza sativa	Glycine max			Oryza sativa	Petunia x hybrida	Antirrhinum majus	Gossypium hirsutum	Zea mays	Zea mays	Hordeum vulgare	Oryza sativa	Oryza sativa	Lycopersicon esculentum
AJ006292 AF336282 AF336285	X11351	X95296	X70876	D88618	AF336286	AF336278	D88617	X96749	AF336284	X99134	X70879	122	AB028650	AB028649	AB028652	213997	X98308	U72762	AB028651	AB029162	AB029160	AB029159	AB029165	Y11414	AB029161	X11350	AC037425	X11415	213996	AJ006292	AF336283	AF210616	M73028	X99973	X11352	X11351	X99210
CAB43399.1 AAK19615.1 AAK19618.1	CAA72186.1	CAA64614.1		•	AAK19619.1	AAK19611.1	BAA23337.1	CAA65525.1	AAK19617.1		CAA50224.1	SEQ ID NO.	BAA88222.1		BAA88224.1	•	CAA66952.1	AAB41101.1	BAA88223.1	BAA81733.2	BAA81731.1	BAA81730.1	BAA81736.1	CAA72217.1	BAA81732.1	CAA72185.1	AAG13574.1	CAA72218.1	CAA78386.1	CAB43399.1	AAK19616.1	AAG36774.1	AAA33500.1	CAA68235.1	CAA72187.1	CAA72186.1	CAA67600.1

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	Pisum sativum Pisum sativum	Ranunculus acris	Hordeum vulgare	Ginkgo biloba	Taxus baccata	Nicotiana tabacum	Petroselinum crispum	Pinus sylvestris	Zea mays	Craterostigma plantagineum	Zea mays	Zea mays	Zea mays	Oryza sativa	Zea mays	ophylla	Solanum tuberosum		Lycopersicon esculentum	Hordeum vulgare	Lycopersicon esculentum		Pinus	Chloroplast Pinus sylvestris	Pinus sylvestris		Triticum aestivum	Zea mays	Cicer arietinum	Chloroplast Chlamydomonas		Chloroplast Pisum sativum	Nicotiana tabacum	Oryza sativa				
M29956 X59517	X73150 L07500	X60345	X60343	1,26924	L26922	M14419	X60344	L07501	U45856	X78307	045858	U45855	X73151	U31676	U45857	u96623	017005	X72381	U97257	M36650	093208	AJ003783	1,32560	L32561	AJ001706	L13432	AF251217	L13431	AJ010224	L27668		M55147	M14418	AP000615		146	A14939 AF286593	Drecocosts.
AAA33031.1 CAA42103.1	CAA51675.1	Cab42903 1	CAA42901.1	AAA33352.1	AAA89207.1	AAA34077.1	CAA42902.1	AAA33779.1	AAA87579.1	CAA55116.1	AAA87880.1	AAA87578.1	CAA51676.1	AAA82047.1	AAA87580.1	AAB59010.1	AAB07758.1	CAA51071.1	AAB54003.1	AAA32956.1	AAB51592.1	CAA06030.1	AAD10215.1	AAD10214.1	CAA04942.1	AAA33466.1	AAF64241.1	AAA33465.1	CAA09040.1	AAA86855.1	reinhardtii	AAA84543.1	AAA34076.1	BAA85402.1			AABBO67 1	War oooo
Nicotiana tabacum Nicotiana tabacum	Nicotiana tabacum	~	Nicotiana tabacum				Oryza saczya Nicotiana tabacum	Detroselinum crisbum	Dotroselinum Crispum	Cucinate sativus	Direct fatua	potroselinum crisbum	Nicotiana tabacum	π			Orwa sativa	Nicotiana tabacum			π			Solanım tuberosum subsp.		Euchorbia esula		Chlamydomonas reinhardtii		Organ patriva	סדלקם מפריינם		Atriplex numularia	Atriplex numunlaria	Magnolia liliiflora	_	Petunia x hybrida	Mesembryanthemum crystallınum
AB020590 AB022693	AB026890	248429	AE096298	AEUBUDDD	046631 * 1101063	AE121333	AF193802	11595AD	0.000 to	AEC04363	144104 10101	240431 35304926	AEE04220	AF195//1	ABOSSA	ועו	141	AFOOTOGE	AE06.003.0	AEC,02334 AB026084	MC2720	M02/20	142	146 nE126551	AE 12 0001	015040ag	AE24234	A66070 AF052206	2075COOK	#C0/044	Aronoons	143	705577	102886	X60347	AJ133422	X60346	J05223
BAA77383.1	BAA86031.1	CAA88326.1	AAD16138.1	AAC31956.1	AAC49521.1	AAD55974.1	AAF23898.1	AADIO139.1	AAC49329.1	AAGSSBSB.I	AAC3/313.1	CAABBASSI.I	AA653639.1	AAF61864.1	BAAB/U09.1	ON OT OR		BAA90392.1	BAB40310.1	AAE / 3010.1	BABGUSII.I	AAA34310.1		SEQ ID NO.	AADZZ973.1	Cuberosum	AAE 63770.1	CAA46636.I	AAC03039.1	AAGU3100.1	BAA84/91.1	ON OF		CAM33203.1	CAA42905.1	CAB39974.1	CAA42904.1	AAA33033.1

	Nicotiana tabacum Secale cereale Chlamydomonas reinhardtii Chlamydomonas reinhardtii Brassica napus Secale cereale Spinacia oleracea Spinacia oleracea Pisum sativum Spinacia oleracea	Mesembryanthemum crystallinum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Pisum sativum Brassica napus Oryza sativa Brassica napus	Brassica napus Lycopersicon esculentum Lycopersicon esculentum Linum usitatissimum Hordeum vulgare Hordeum vulgare Cucumis sativus Medicago sativa
AF159385 AF159387 AF159388 AF159389 D875984	X5852/ AF159386 X80887 X78822 U59380 AF186240 X51463 X51462 X63537 X14959 U35830	AFU69314 X80888 X78821 X76269 U35831 AF018174 AJ005841 U76831 AF160870 AF160870 AF160870 AF160870 AF160870 AF160870	AF160870 149 AJ271093 AF230371 U00428 AJ250864 AJ251304 AF229811 AJ249246 AJZ49246
AAD49230.1 AAD49233.1 AAD49233.1 AAD49234.1 BAA13524.1	CAA41415.1 AAD49231.1 CAA56850.1 CAA55399.1 AAB53695.1 AAB56954.1 CAA35827.1 CAA35826.1 CAA35826.1 CAA35826.1		AAD45358.1 SEQ ID NO. CAB88032.1 AAF67141.1 AAA03353.1 CAB86383.1 CAB86384.1 AAF64041.1 CAB54848.1
Mesembryanthemum crystallinum Triticum turgidum subsp. durum Oryza sativa Pisum sativum Pisum sativum		a tabacum monas reinhardtii monas reinhardtii oleracea oleracea asiliensis napus atabacum tiva aestivum	riticum turgidum subsp. durum Ricinus communis Picea mariana Brassica rapa Brassica oleracea var. Brassica napus Oryza sativa Oryza sativa
AF069314 AJ001903 AB053294 U35830 X63537	A50527 021836 092541 D26547 AF051206 270677 AB010434 AF273844	211803 X80887 X78822 X51463 X51462 AF133127 U59380 147 AF133127 Z11803 AB053294 AF286593	AJULTAUS Z70677 AF051206 AB010434 AF273844 U59379 AP002912 D26547 U92541 D21836
AAC19392.1 CAA05081.1 BAB20886.1 AAC49357.1 CAA45098.1	BAA04864.1 AAB51522.1 BAA05546.1 AAC32111.1 CAA94534.1 BAA25681.1 BAA25681.1 BAA35777.1	CAA56850.1 CAA56850.1 CAA55399.1 CAA35827.1 CAA35826.1 AAD33596.1 AAD33596.1 AAD33596.1 CAA77847.1 BAB20886.1	CAADSUB1.1 CAA94534.1 AAC32111.1 BAA25681.1 AAG35777.1 alboglabra AAB53694.1 BAA05546.1 AAB51522.1 BAA04864.1

Nicotiana tabacum Medicago sativa Lycopersicon esculentum Antirrhinum majus Chenopodium rubrum Dunaliella tertiolecta Medicago sativa Lycopersicon esculentum Antirrhinum majus	Oryza sativa Zea mays Oryza sativa Zea mays Oryza sativa Picea abies Triticum aestivum Brassica napus Chenopodium rubrum Lycopersicon esculentum Pinus contorta Populus tremula x Populus	abacum majus n escul tifolia culata a a abacum strata n crisp	Allium cepa Petunia x hybrida Nicotiana tabacum Triticum aestivum Medicago sativa Vigna radiata Phaseolus vulgaris Antirhinum majus Oryza sativa Mesembryanthemum crystallinum
AF289466 X97315 AJ297916 X97639 AJ278885 AF038570 X97317 AJ297917	D64036 M60526 X60374 X77680 U23409 U18365 X10160 Y17225 X80845	AF289467 X97637 Y17226 M99497 X89400 X60375 AB008187 L77082 Z75661 L34206 X70707	AB006033 Y13646 L77083 U23410 M58365 AF129886 AF126737 X97638 X58194 AB015182
AAG01533.1 CAA65980.1 CAC15503.1 CAA66235.1 CAC17703.1 AAD08721.1 CAC15504.1	CAA19553.1 BAA33479.1 CAA42922.1 CAA54746.1 AAD10483.1 AAA92823.1 CAA71242.1 CAA76700.1 CAA56815.2	tremuloides AAG01534.1 CAA66233.1 CAA76701.1 AAA34241.1 CAA61581.1 CAA42923.1 BAA33152.1 AAB02567.1 CAA99991.1 AAC41680.1 CAA50038.1	BAA21673.1 CAA73997.1 AAB02568.1 AAD10484.1 AAB41817.1 AAD30506.1 AAD30494.1 CAA66234.1 CAA61172.1 BAA28778.1
Medicago sativa Capsicum annuum Capsicum annuum Esidium guajava Lycopersicon esculentum Lycopersicon esculentum	Ruta graveolens Ruta graveolens Nicotiana tabacum Oryza sativa Oryza sativa Catharanthus roseus Brassica napus Populus tremula x Populus	escul crisp escul ifolia rrata llata llata garis	Lycopersicon esculentum Oryza sativa Pisum sativum Oryza sativa Solanum tuberosum Chlamydomonas reinhardtii Beta vulgaris
AJ249247 US1674 AY028374 AF239670 AY028373 AF230372 AJ239065	130 134343 134344 AF079168 AB022603 AB022602 AJ250008 151 U18365 AF194820	X17225 L34206 X17226 M99497 Z75661 X89400 M60526 AF129886 AF126737 AJ297916	AJ297917 D64036 X53035 X58194 U53510 AB035141 Z71702 152
	SEQ ID NO. 1 AAA74900.1 AAA74901.1 AAC27795.1 BAA82095.1 BAA820960.1 CAC29060.1 SEQ ID NO. 1 AAA92823.1	tremuloides CAA76700.1 AAC41680.1 CAA76701.1 AAA34241.1 CAA99991.1 CAA61581.1 AAD30506.1 AAD30494.1 CAC15503.1	CAC15504.1 BAA19553.1 CAA37207.1 CAA41172.1 AAA98856.1 BAB18271.1 CAA96384.1 SEQ ID NO. 1

\sim	X97314		AAD00708.1	091857	Stylosanthes hamata
X97316 AF216316		Medicago sativa Oryza sativa	AAC49741.1 AAC29516.1	U89257 U77655	Lycopersicon esculentum Solanum tuberosum
AJ251330 (Ŭ	Oryza sativa	AAF05606.1	AF190770	Oryza sativa
AB035141 C		Chlamydomonas reinhardtii	BAA76734.1	AB024575	Nicotiana tabacum
			AAD45623.1	AF084185	Brassica napus
154			AAG59619.1	AF243384	Oryza sativa
U89255 L	H	Lycopersicon esculentum			
AB016264 N	z	Nicotiana sylvestris		156	
D38123 N	z	Nicotiana tabacum	CAA58775.1	X83923	Solanum tuberosum
AE057373 N	Z	Nicotiana tabacum	CAA04994.1	AJ001772	Nicotiana tabacum
AB035270 M	Σ	Matricaria chamomilla	CAB52708.1	AJ010712	Solanum tuberosum
AJ251249 C	Ü	Catharanthus roseus	CAA67782.1	X99405	Nicotiana tabacum
AJ251250 Ca	Ü	Catharanthus roseus	CAA03941.1	AJ000184	Spinacia oleracea
U81157 N.	z	Nicotiana tabacum	AAB69317.1	AF012861	Petroselinum crispum
U89256 Ly	크,	Lycopersicon esculentum	CAB52685.1	AJ132346	Dunaliella bioculata
	Z	Nicotiana sylvestris	CAA03939.1	AJ000182	Spinacia oleracea
AB016265 N	Ż	Nicotiana sylvestris	AAF87216.1	AF231351	Nicotiana tabacum
U91857 St	st	Stylosanthes hamata	CAA03940.1	AJ000183	Spinacia oleracea
AB037183 Ox	ö	Oryza sativa	AAB41552.1	U18238	Medicago sativa subsp. sa性va
	ö	Oryza sativa	BAA97662.1	AB029454	E
75	Z.	Nicotiana tabacum	AAD11426.1	AF097663	Mesembryanthemum crystallinum
	Ţ	Lycopersicon esculentum	CAA52442.1	X74421	Solanum tuberosum
	လိ	Solanum tuberosum	AAB69318.1	AF012862	Petroselinum crispum
	Ã	Brassica napus	BAA97663.1	AB029455	Triticum aestivum
	Ĭ	Hordeum vulgare	AAB69319.1	AF012863	Petroselinum crispum
AF298231 Hc	Ħ	Hordeum vulgare	BAA97664.1	AB029456	Triticum aestivum
			CAA04993.1	AJ001770	Nicotiana tabacum
155			CAA04992.1	AJ001769	Nicotiana tabacum
	z	Nicotiana sylvestris	AAG23802.1	AF260736	Cucurbita pepo
20	Σ	Matricaria chamomilla	CAB66330.1	AJ279688	Betula pendula
U89255 Ly	크,	Lycopersicon esculentum	BAA82155.1	AB011441	Triticum aestivum
AB016264 N.	z	Nicotiana sylvestris	CAA06200.1	AJ004900	Glycine max
D38123 Ni	N	Nicotiana tabacum			
U89256 Ly	ß	Lycopersicon esculentum	SEQ ID NO. 1	157	
73	z	Nicotiana tabacum	CAA70768.1	X09579	Pisum sativum
	Z	Nicotiana tabacum	CAB94801.1	AJ289774	Pisum sativum
	O	Catharanthus roseus	CAB89693.1	AJ276591	Pisum sativum
	Ü	Catharanthus roseus	AAC98912.1	AF029984	Lycopersicon esculentum
	z	Nicotiana sylvestris	CAB89694.1	AJ276592	Pisum sativum
AB037183 Or	0r	Oryza sativa	CAB94800.1	AJ289773	Pisum sativum

Oryza sativa Oryza sativa Nicotiana tabacum	Glycine max Oryza sativa; Mesembryanthemum crystalli Craterostigma plantagineum Vicia faba Triticum aestivum Chlamydomonas reinhardtii Triticum aestivum	Ricinus communis Nicotiana tabacum Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Cryza sativa Eagopyrum esculentum Brassica napus Picea mariana	Triticum aestivum Triticum turgidum subsp. durum Brassica napus Brassica oleracea var. Brassica rapa Lolium perenne Secale cereale Phalaris coerulescens Hordeum bulbosum Secale cereale Oryza sativa Chlamydomonas reinhardtii Hevea brasiliensis Mesembryanthemum crystallinum Pisum sativum
AC084763 AB002109 U73939	1,38855 D88399 2,26846 AJO05373 AF186020 U29095 AF100162	163 270677 211803 X58527 D26547 U92541 D21836 AB053294 U59380 AF051206	AF286593 AJ001903 U59379 AF273844 AF159387 AF159389 AF159388 AF1593887 AF189382 AF189382 AF189382 AF189387 AF189387 AF189387 AF1833127 AF133127
AAG60195.1 BAA19573.1 AAD00240.1	AAB68962.1 BAA13608.1 CAA81443.1 CAA06503.1 AAF27340.1 AAB58348.1 AAC98509.1 AAA96325.1	SEQ ID NO. 1 CAA94534.1 CAA77847.1 CAA41415.1 BAA05546.1 AAB51522.1 BAA04864.1 BAB20886.1 BAB20886.1 AAB53695.1	AAC19392.1 AAB53694.1 AAB53694.1 AAG35777.1 AAD49232.1 AAD49231.1 AAD49233.1 AAD49233.1 AAD56954.1 BAB39913.1 CAA55399.1 CAA55399.1 CAA55399.1
Oryza sativa subsp. japonica Ipomoea nil	Daucus carota Lycopersicon esculentum Nicotiana tabacum Pisum sativum 2ea mays Daucus carota 2ea mays	Pisum sativum Pisum sativum Pisum sativum Pisum sativum Clycine max Solanum tuberosum Hordeum vulgare Twoopersicon esculentum	Lycopersicon esculentum Nicotiana tabacum Solarum tuberosum Oryza sativa Hordeum vulgare Gucumis sativa Hordeum vulgare Cucumis sativus Solarum tuberosum Oryza sativa Sorghum bicolor Sorghum bicolor Sorghum bicolor Iriticum aestivum Oryza sativa Zea mays Oryza sativa Zea mays Oryza sativa
AB040053 AF315714	159 AF007807 AJ002140 AB030726 AF034419 AF229183 AF007808	161 AJ276591 AJ289774 AJ289773 AJ276592 162 AF128443 X95997 X65606	AF143743 D26602 U83797 AF062479 AJ007990 X65604 U55768 X82548 Y10036 AP002482 Y12464 AB011967 AB011967 AB011967 AB011967
BAA94422.1 AAG31173.1	SEQ ID NO. 19 AAC39355.1 CAA05207.1 BAA92852.1 AAC49931.1 AAG15406.1 AAC39356.1 AAK11516.1		AAF66639.1 BAA05649.1 AAB52224.1 AAC99329.1 CAA07813.1 CAA7818.1 CAA71142.1 CAA71142.1 CAA73068.1 CAA73068.1 CAA73068.1 BAA83689.1 BAA83689.1 AAF22219.1 BAA83689.1

AF186240 Secale cereale	AF133127 Hevea brasiliensis	U35831 Pisum sativum	X76269 Pisum sativum	· X51462 Spinacia oleracea	X51463 Spinacia oleracea	X63537 Pisum sativum	U35830 Pisum sativum	70 Brassi	ŀ	14 Mesembrya	1 Orvza sativa				X78821 Chlamydomonas reinhardtii	AJ005840 Triticum aestivum	U87141 Mesembryanthemum crystallinum		2	14 192	AF271358 Orvza sativa	7-	166	AF283708 Tulipa gesneriana	Tulipa	Tulipa		167	AF005492 Oryza sativa	AB040471 Nicotiana tabacum	AF046934 Paulownia kawakamii	AJ003142 Lycopersicon esculentum	X73635 Lycopersicon esculentum	AP002092 Oryza sativa	D38111 Triticum aestivum	X56781 Triticum aestivum	Y10685 Glycine max	U57389 Phaseolus vulgaris	X58577 Petroselinum crispum	
AAD56954.1	AAD33596.1	AAC49358.1	CAA53900.1	CAA35826.1	CAA35827.1	CAA45098.1	AAC49357.1	AAD45358.1	AAB52409.1	AAC19392.1	CAA06736.1	AAC04671.1	CAA56851.1	CAA44209.1	CAA55398.1	CAA06735.1	AAB47556.1	CAA33082.1		SEQ ID NO.			SEQ ID NO.	AAG14456.1	AAG14455.1	AAG14454.1		SEQ ID NO.	AAC49832.1	BAA97100.1	AAC04862.1	CAA05898.1	CAA52015.1	BAA96162.1	BAA07289.1	CAA40101.1	CAA71687.1	AAB36514.1	CAA41453.1	
Pisum sativum	Spinacia oleracea	Spinacia oleracea	Pisum sativum	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Pisum sativum	Brassica napus		u	Brassica napus		Triticum aestivum	Mesembryanthemum crystallinum			Brassica napus	Oryza sativa	Oryza sativa	Oryza sativa	Brassica rapa		Brassica oleracea var.		Ricinus communis	Nicotiana tabacum	Nicotiana tabacum	Oryza sativa	Triticum aestivum	Fagopyrum esculentum	Triticum turgidum subsp. durum	Picea mariana	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Secale cereale	Lolium perenne	Phalaris coerulescens	Hordeum bulbosum	Phalaris coerulescens	
035830	X51463	X51462	X76269	X78821	X80888	X62335	U35831	AF018174	X14959	AJ005841	AF160870	U76831	AJ005840	U87141		164	059380	D21836	D26547	092541	AB010434	059379	AF273844		LL90LZ	X58527	211803	AB053294	AF286593	D87984.	AJ001903	AF051206	X78822	X80887	AF159386	AF159387	AF159388	AF159385	AF159389	
AAC49357.1	CAA35827.1	CAA35826.1	CAA53900.1	CAA55398.1	CAA56851.1	CAA44209.1	AAC49358.1	AAC04671.1	CAA33082.1	CAA06736.1	AAD45358.1	AAB52409.1	CAA06735.1	AAB47556.1		SEQ ID NO. 1	AAB53695.1	BAA04864.1	BAA05546.1	AAB51522.1	BAA25681.1	AAB53694.1	AAG35777.1	alboglabra	CAA94534.1	CAA41415.1	CAA77847.1	BAB20886.1	AAF88067.1	BAA13524.1	CAA05081.1	AAC32111.1	CAA55399.1	CAA56850.1	AAD49231.1	AAD49232.1	AAD49233.1	AAD49230.1	AAD49234.1	

11	215	
Zea mays Fragaria x ananassa Pisum sativum Zea mays Mesembryanthemum crystalli Nicotiana tabacum Oryza sativa Triticum aestivum Rosa hybrid cultivar Triticum aestivum	Petroselinum crispum Antirrhinum majus Antirrhinum majus Antirrhinum majus Nicotiana tabacum Lycopersicon esculentum Phaseolus vulgaris Phaseolus acutifolius Glycine max Oryza sativa Oryza sativa Oryza sativa Petroselinum crispum Petroselinum crispum Oryza sativa	Triticum aestivum Hordeum vulgare Triticum aestivum Triticum aestivum Spinacia oleracea Phaseolus vulgaris Oryza sativa Triticum aestivum Triticum aestivum Ajuga reptans Ajuga reptans
AF012889 AF035944 AB008187 AF141378 Z26846 AF072908 AC073166 M94726 AY029067 U29095	171 AJ292745 AJ292744 Y13676 Y13675 D63951 AF176641 AF350505 AY026054 Y10685 L34551 AB021736 D78609 X58577 Y10809	D38111 Y10834 Y09013 X56781 AJ223624 U41817 U42208 D12920 AF106954 AJ237693 AJ237694 AF178569
AAB66608.1 AAB88537.1 BAA33152.1 AAF22219.1 CAA81443.1 AAC25423.1 AAC46110.1 AAA96325.1 AAA96325.1 AAB58348.1	SEQ ID NO. CACO0658.1 CACO0657.1 CAA74023.1 CAA74022.1 BAA22204.1 AAD55394.1 AAK5822.1 AAK61953.1 CAA71687.1 BAA36492.1 BAA31431.1 CAA71768.1	
Oryza sativa Catharanthus roseus Petroselinum crispum Oryza sativa Vicia faba Oryza sativa Nicotiana tabacum Phaseolus vulgaris Triticum aestivum Hordeum vulgare	Nicotiana tabacum Oryza sativa Inycopersicon esculentum Mesembryanthemum crystallinum Chlamydomonas eugametos Dunaliella tertiolecta Lycopersicon esculentum Sorghum bicolor Lycopersicon esculentum Oryza sativa Hordeum vulgare Kalanchoe fedtschenkoi	Actanchoe reduscinemos Glycine max Oryza sativa Sorghum blcolor Triticum aeștivum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Mesembryanthemum crystallinum Medicago sativa Oryza sativa
U42208 AY027510 Y10809 L34551 X97904 U04295 Z48603 AF350505 Y09013	169 AJO06228 170 AB011968 AJ005077 AF158091 Z49233 AF216527 AF203480 Y12465 AF203481 AF305911 AF305912	AF162661 AF203479 AP001168 X12464 AB011670 U55768 AB011967 X56599 X58194 AP000615 AF048691 AF090835 X70707
AAB40291.1 AAK14790.1 CAA71768.1 AAC37418.1 CAA66478.1 AAC49556.1 CAA88493.1 AAK25822.1 CAA71795.1		AAF06969.1 AAF19401.1 BAA90814.1 CAA73067.1 BAA34675.1 AAB05457.1 BAA83698.1 CAA41172.1 BAA85396.1 AAD17800.1 CAA50038.1 CAA50038.1

ON CIT CHE	181		AAK15502.1	AE325720 x82578	Pennisetum ciliare Darthonium argentatum
	U11446	Pennisetum glaucum	BAA77025.1	AB026251	Lithospermum ervthrorhizon
AAA80172.1	U11445				7
AAA33504.1	M26227		SEQ ID NO.	188	
AAA80171.1	U11444	Pennisetum glaucum	BAA04611.1	D17765	Oryza sativa
AAG25927.1	AF260918	Petunia x hybrida			
AAG25928.1	AF260919	Petunia x hybrida	SEQ ID NO.	189	
CAA40544.1	X57276	Zea mays	CAC12883.1	AJ295006	Nicotiana tabacum
AAA80175.1	U11450	Sorghum bicolor	CAA55090.1	X78284	Medicago sativa
AAC49216.1	039865	Oryza officinalis	BAA92964.1	AP001551	Oryza sativa
AAB03841.1	057899	2ea mays	AAB82139.1	AF022736	Oryza sativa
			CAA64625.1	X95313	Chlamydomonas reinhardtii
	185		AAF78516.1	AF195217	
CAA10134.1	AJ012693	Cicer arietinum	AAF43806.1	AF166114	Chloroplast Mesostigma viriue
CAB65280.1	AJ248323	Medicago sativa subsp. x varia	BAA58003.1	AB001684	Chlorella vulgaris
AAC32448.1	U76296	Spinacia oleracea	AAC64970.1	AF095708	Oryza sativa
AAF66243.1	AF243181	Lycopersicon esculentum	AAD54793.1	AF137379	Chloroplast Nephroselmis
AAD10251.1	AF031195	Triticum aestivum	olivacea		
AAF66242.1	AF243180	Lycopersicon esculentum			21
CAA80963.1	225471	Pisum sativum		190	.6
AAC64163.1	AF093537	Zea mays	CAB61752.1	AJ275318	Cicer arietinum
			CAC14890.1	AJ295156	Phragmites australis
	187		AAB68605.1	U82433	Prunus armeniaca
AAD32207.1	AF134733	Prunus armeniaca	AAA86532.1	U31544	Pisum sativum
AAB70919.1	AF019376	Brassica napus			
AAB71420.1	U74631	Ricinus communis	SEQ ID NO.	191	
AAB71419.1	U74630	Ricinus communis	BAA02157.1	D12632	Oryza sativa
CAA95999.1	271395	Nicotiana plumbaginifolia	BAB19390.1	AP002542	Oryza sativa
CAA05161.1	AJ002057	Beta vulgaris	AAF64190.1	AF245665	Mesembryanthemum crystallinum
AAA32949.1	L27349	Hordeum vulgare			
AAE01470.1	AF190454	Zea mays	SEQ ID NO.	192	
CAA86728.1	246772	Zea mays	CAA12358.1	AJ225027	Cicer arietinum
CAA61939.1	X89813	Zea mays	CAA63960.1	X94296	Hordeum vulgare
AAG01147.1	AF283816	Pinus taeda	AAG13986.1	AF298827	Prunus avium
AAA32948.1	L27348	Hordeum vulgare			
BAA88900.1	AB021259	Oryza sativa		193	
AAD17490.1	AF052040	Berberis stolonifera	BAA94964.1	AB042113	Glycine max
CAA54975.1	X78057	Zea mays	BAA94966.1	AB042115	Oryza sativa
CAB54526.1	AJ000765	Chlamydomonas reinhardtii	AAF67099.1	AF216853	Zea mays
BAA85118.1	AB018243	Solanum melongena	BAA94965.1	AB042114	Glycine max

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Manihot esculenta Lycopersicon esculentum		Vitis labrusca x Vitis	Scutellaria baicalensis	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Nicotiana tabacum	Vitis vinifera	Vitis vinifera	Vitis labrusca x Vitis v	Vitis vinifera	Vitis vinifera	Petunia x hybrida	Manihot esculenta	Forsythia x intermedia	Malus x domestica	Solanum tuberosum			Plastid Oryza sativa				Lycopersicon esculentum			Medicago sativa	Oryza sativa			Brassica oleracea	Salix bakko	Zea mays	Oryza sativa	Pimpinella brachycarpa	
X77459 X85138	AF101972	AB047090	AB031274	AB047093	AB047095	AB047092	AB047099	AB047098	AB047097	AF190634	AB047096	AB047094	AB047091	AF000372	AF000371	AB027455	X77464	AF127218	AF117267	U82367		201	X15901		202	AF161704	X83421	•	203	AF084202	D38011		204	AF098672	AB003378	AF034944	AF094774	AE091857	
CAA54609.1 CAA59450.1	AAD04166.1	BAB41017.1	BAA83484.1	BAB41020.1	BAB41022.1	BAB41019.1	BAB41026.1	BAB41025.1	BAB41024.1	AAF61647.1	BAB41023.1	BAB41021.1	BAB41018.1	AAB81683.1	AAB81682.1	BAA89009.1	CAA54614.1	AAD21086.1	AAD26203.1	AAB48444.1		SEQ ID NO.	CAA33932.1		SEQ ID NO.	AAD50774.1	CAA58444.1		SEQ ID NO.	AAC77928.1	BAA07208.1		SEQ ID NO.	AAF04624.1	BAA24697.1	AAB88615.1	AAC67556.1	AAC61599.1	
	Beta vulgaris	Daucus carota			Coptis japonica	Papaver somniferum	Eschscholzia californica	Eschscholzia californica	Persea americana	Thlaspi arvense	Solanum melongena	Pisum sativum	Glycine max	Berberis stolonifera	Petunia x hybrida	Petunia x hybrida	Eustoma grandiflorum	Cicer arietinum	Glycine max	Asparagus officinalis	Asparagus officinalis	Solanum melongena	Sorghum bicolor	Catharanthus roseus	Antirrhinum majus	Nepeta racemosa	Nepeta racemosa	Torenia hybrida	Glycine max	-		Manihot esculenta	Manihot esculenta	Dorotheanthus bellidiformis	Nicotiana tabacum	Nicotiana tabacum	Manihot esculenta	Nicotiana tabacum	Nicotiana tabacum
194	x87931	L16983		199	AB025030	AE191772	AF014800	AF014801	M32885	L24438	X71657	AF218296	D83968	009610	AF155332	AF081575	072654	AB032833	AE022459	AB037245	AB037244	X70824	AF029858	AJ238612	AB028151	X09423	X09424	AB028152	D86351		200	X77462	X77461	X18871	U32643	AE346432	X77463	AF346431	U32644
SEO TD NO.		AAA33136.1		SEQ ID NO.	BAB12433.1	AAF05621.1	AAC39452.1	AAC39453.1	AAA32913.1	AAA19701.1	CAA50648.1	AAG44132.1	BAA12159.1	AAC48987.1	AAD56282.1	AAC32274.1	AAB17562.1	BAA84916.1	AAB94588.1	BAB40324.1	BAB40323.1	CAA50155.1	AAC39318.1	CAB56503.1	BAA84071.1	CAA70575.1	CAA70576.1	BAA84072.1	BAA13076.1		SEQ ID NO.	CAA54612.1	CAA54611.1	CAB56231.1	AAB36652.1	AAK28304.1	CAA54613.1	AAK28303.1	AAB36653.1

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Fagus sylvatica Mesembryanthemum	Zea mays	Fagus sylvatica Mesembryanthemum	Fagus sylvatica	Oryza sativa	Mesembryanthemum	Zea mays	Mesembryanthemum	Fagus sylvatica			Triticum aestivum	Ricinus communis	Pseudotsuga menziesii			Manihot esculenta	Hevea brasiliensis	Manihot esculenta	Manihot esculenta			Zea mays	Zea mays	Hordeum vulgare	Oryza sativa	Solanum tuberosum	Triticum aestivum	Hordeum vulgare			Zea mays			Helianthus annuus			Eagopyrum esculentum	Picea mariana
AJ277743 AF075582	AF213455	AJ29898 / AF079355	AJ277744	AF075603	AE097667	U81960	AF075581	AJ298988		21.6	X07851	X07852	249766		217	AJ223281	U40402	229091	AJ223506		218	AF030882	018908	AF142589	AB015615	AF142591	AF142590	AF142588	,	221	X95458		223	X74772		225	D87984	AF051206
CAB90633.1	AAG43835.1	CAC09575.1	CAB90634.1	AAC26828.1	AAD11430.1	AAB93832.1	AAC36699.1	CAC09576.1		SEQ ID NO.	CAA30699.1	CAB51619.1	CAA89836.1		SEQ ID NO.	CAA11219.1	AAC49184.1	CAA82334.1	CAA11428.1		SEQ ID NO.	AAB97167.1	AAA91298.1	AAD33889.1	BAA29041.1	AAD33891.1	AAD33890.1	AAD53260.1		SEQ ID NO.	CAA64728.1		SEQ ID NO.	CAA52782.1		SEQ ID NO.	BAA13524.1	AAC32111.1
אפש פון יאן ט			Cicer arrections Phragmites australis	Pisum sativum	Prunus armeniaca			Zea mays	Mesembryanthemum crystallinum	Nicotiana tabacum	Fagus sylvatica	Nicotiana tabacum	Medicago sativa	E	Mesembryanthemum crystallinum	Lotus japonicus	Lotus japonicus	Fagus sylvatica	Mesembryanthemum crystallinum	Mesembryanthemum crystallinum	Fagus sylvatica	Oryza sativa	Mesembryanthemum crystallinum	Zea mays	Fagus sylvatica			Oryza sativa	Cicer arietinum			Lotus japonicus		Mesembryanthemum crystallinum		c	Nicotiana tabacum	Nicotiana tabacum
206 1163726		207	AJ295156	U31544	082433		210	AF213455	AF075580	AJ277087	AJ277743	AJ277086	X11607	AE075579	AF075582	AF092431	AF092432	AJ298987	AF075581	AF097667	AJ277744	AF075603	AF079355	U81960	AJ298988		211	X99608	AJ001901		212	AF092432	X11607	AF075580	AF092431	AF075579	AJ277087	AJ277086
SEQ ID NO.		SEQ ID NO.	CAC14890.1	AAA86532.1	AAB68605.1		SEO ID NO.		AAC36698.1	CAC10359.1	CAB90633.1	CAC10358.1	CAA72341.1	AAC36697.1	AAC36700.1	AAD17804.1	AAD17805.1	CAC09575.1	AAC36699.1	AAD11430.1	CAB90634.1	AAC26828.1	AAC35951.1	AAB93832.1	CAC09576.1		SEQ ID NO.	CAA67922.1	CAA05079.1		SEQ ID NO.	AAD17805.1	CAA72341.1	AAC36698.1	AAD17804.1	AAC36697.1	CAC10359.1	CAC10358.1

	Lycopersicon esculentum	Nicotiana tabacum	Tycoperation esculentum	nycoperation cocarcina			Pinus sylvestris	Asarina barclaiana	Pinus sylvestris	Chlamvdomonas reinhardtii	Orvza sativa	Zos mays	Hordenm villagre		Siliapis anda	Sinapis alba	Oryza sativa	Triticum aestivum	Zea mays	Hordeum vulgare	Pinus sylvestris O	Chloroplast Gossypium hirsutum	Zea mays	Pinus sylvestris	Lycopersicon esculentum	Lycopersicon esculentum	Pisum sativum	Nicotiana tabacum	Tucoperation esculentum	Nicotions on mostrie		NICOLIANA PLUMBAGINILOLLA	Fisum sativum	Nicotiana sylvestris	Petunia x hybrida	Petunia x hybrida	Lycopersicon esculentum	•		phaseolus vulgaris	Vitis vinifera	Viene unquiculate	עוקוום חוואמירמים
766	M17633	764198	703EE0	000000	AF218305	AF094776	X58514	AF241524	X58515	AF195794	707037	750901	37070C34	AE 2012.10	XTDB94	X16436	AE094775	U73218	023188	X63052	X58516	L07119	U23189	X14506	X14036	M20241	AF002248	X82497	10470V	10000 TE	AB012638	M21398	X81962	AB012641	X04966	M21317	M17558		228	787187	1197521	73737	Yaaano
C ON UL OGO		1.0511/442	CAR45525.1	AAA34186.1	AAF23819.1	AAC67558.1	CAA41404.1	AAF44702.1	CAA41405.1	1 7972744	1.50404044	AMC14306.1	CAA90661.1	AAE 90200 . I	CAA33903.1	CAA34459.1	AAC67557.1	AAB18209.1	AAA64414.1	CAA44777.1	CAA41406.1	AAA18529.1	AAA64415.1	CAA32658.1	CAA32197.1	1 95178 Tu	1 12721344	AME 13/31.1	CAR5/0//.1	AAA34142.1	BAA25392.1	AAA34056.1	CAA57492.1	BAA25396.1	CAA28639.1	AAA33711.1	AAA34141.1		SEO TD NO.		CAM404/4.1	ביטיייטראליי	CAA61281.1
Nicotiana tabacum	Brassica napus		Triticum turgidum subsp. durum	Triticum aestivum	Oryza sativa	Oryza sativa	Oriza gativa	dra colon rada		KICIURS COMMUNIS	Brassica napus	Brassica oleracea var.		Nicotiana tabacum	Secale cereale	Phalaris coerulescens	Phalaris coerulescens	Orvza sativa	Hordenm bulbosum	Toltim nerenne	north percent	DEVEC DISSIBLE OF STATES	Chlamydomonas reimnarucii		Secare Cereare	Chramydomonas reminardent	Chlamydomonas reminarucum	Chlamydononas reinhardtil	Mesembryanthemum crystallinum	Brassica napus	Pisum sativum	Pisum sativum	Spinacia oleracea	Spinacia oleradea	מוניין שוניין שונייין שוניייין שוניייין שוניייין שוניייין שונייייין שוניייין שונייייייין שוניייייייייייייייייייייייייייייייייייי			Spinacia Oleracea	Brassica napus	Brassica napus	Oryza sativa	Triticum aestivum	Chlamydomonas reinhardtii
X58527	U59380	AB053294	AJ001903	AF286593	D26547	D21836	1102541	157010ak	2	7/90/2	U59379	AF273844		211803	AF159386	AF159388	DF159389	00000110 00000010	AF002212	AFLUNCOU	AE 139367	AF13312/	X78822	ABUBB/	AFIB6240	X62335	X8088	X78821		AF018174	035830	X63537	X51463	V51462	30570	A 10203	03001		AF160870	076831	AJ005841	AJ005840	U43609
CAA41415.1		•	CAA05081.1	AAF88067.1	BAA05546.1	BD00464 1	י ככיייים רייינים	AABS1322.1	BAAZSOBI.I	CAA94534.1	AAB53694.1	AAG35777.1	alboglabra	CAA77847.1	AAD49231.1	1 EE C B P U V V	ר 160000	1.1.0000	BABSSSIS.I	AAD49230.1	AAD49232.1	AAD33596.1	CAA55399.1	CAAS685U. I	•	CAA44209.1	CAA56851.1	CAA55398.1	AAC19392.1	AAC04671.1	AAC49357.1	CAA45098.1		L 20000440	CAM33020.1	CAR55900.1	AAC49336.1	CAA33082.1	AAD45358.1	AAB52409.1	CAA06736.1	CAA06735.1	AAB03681.1

Solanum tuberosum Solanum tuberosum Nicotiana tabacum	Arabidopsis Arabidopsis halleri Arabidopsis griffithiana Arabidopsis korshinskyi Capsella rubella Halimolobos perplexa var.	himalaica lyrata su griffithi lyrata su	Arabis parishii Arabis lyallii Arabis glabra Arabis fendleri Arabis drummondii Arabis drummondii Arabis drummondii	Arabis lignifera Cardamine amara Rorippa amphibia Cardamine penzesii Sisymbrium irio Lepidium campestre Sinapis alba Cardamine rivularis Barbarea vulgaris Brassica napus Arabis pauciflora Cochlearia danica
	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9			
AAA17409.1 U02607 AAA18332.1 U02605 CAA45821.1 X64518	SEQ ID NO. 229 AAB35812.1 S80554 AAF23570.1 AF112095 AAF23568.1 AF14533 AAG43351.1 AF144533 AAF23581.1 AF112106		AAF23576.1 AF112101 AAF23574.1 AF112099 AAF23566.1 AF112090 AAF23563.1 AF112090 AAF23564.1 AF112089 AAF23579.1 AF112104	AAF23573.1 AF112098 AAF23560.1 AF112085 AAG43356.1 AF144530 AAG43359.1 AF144534 CAA32495.1 AF144534 CAA32495.1 AF144539 AAF2357.1 AF12108 AAC31914.1 AF076336 AAC31912.1 AF112102 AAG43350.1 AF112102 AAG43350.1 AF14532 CAA34460.1 X16437
AAA] AAA] CAA4	SEO AAES AAES AAES AAES	perplex AAG4334 AAF2357 Lyrata AAF2356 AAF2357	AAF2357 AAF2357 AAF2356 AAF2356 AAF2356 AAF2357 POETAGG	AAEZ AAEZ AAG4 AAG4 AAG3 AAC3 AAC3 AAG5 AAG5
Vitis vinifera Chenopodium amaranticolor Chenopodium amaranticolor Chenopodium amaranticolor	Brassica napus Chenopodium amaranticolor Beta vulgaris Daucus carota Daucus carota Daucus carota	Zea mays Zea mays Beta vulgaris Triticum aestivum Oryza sativa Oryza sativa	Picea glauca Brassica napus Citrus sinensis Triticum aestivum Poa pratensis Nicotiana sylvestris Poa pratensis	Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Solanum tuberosum Solanum tuberosum Secale cereale Persea americana Triticum aestivum Lycopersicon esculentum Elaeagnus umbellata Allium sativum
U97522 D45182 D45184 D45181	X61488 D45183 X75945 U52845 U52846 U52846	M84165 M84164 L25826 AF112966 AB054811 AB054687	142467 U21848 AF090336 AF112963 AF000966 AJ301671 AF000964 X16938	X16939 X64519 X51599 S44869 M15173 X07130 X15494 AF280437 Z78202 X76041 Z15140 AF061805 M94106
AAB65777.1 BAA22966.1 BAA22968.1 BAA22965.1	CAA43708.1 BAA22967.1 CAA53544.1 AAC49435.1 AAB08468.1 AAB08470.1	AAA32916.1 AAA32916.1 AAA28733.1 BAB21377.1 BAB21374.1	AAA85364.1 AAB01665.1 AAC35981.1 AAD28730.1 AAF04454.1 CAC17793.1 AAF04453.1 CAA34812.1	CAA34813.1 CAA5582.1 CAA35945.1 AAB23374.1 AAB23374.1 CAA30142.1 CAA33517.1 AAG53609.1 CAA53626.1 CAA78845.1 AAC16010.1 AAA32640.1

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Medicago sativa Populus tremuloides Medicago sativa Populus balsamifera subsp.	Populus deltoides Eucalyptus globulus Eucalyptus saligna Brassica napus Eucalyptus gunnii Eucalyptus gunnii	Lolium perenne Brassica oleracea Zea mays Zea mays Brassica napus Saccharum officinarum Brassica rapa	Brassica napus Brassica rapa Zinnia elegans Eucalyptus botryoides Eucalyptus globulus Brassica napus Brassica oleracea Brassica napus Brassica napus Brassica rapa Brassica coleracea	Gossypium arboreum Lupinus albus Lupinus albus Humulus lupulus Humulus lupulus Capersicon esculentum Capsicum annuum Parthenium argentatum Helianthus annuus
219573 AF217957 AF083332 AJ295837	219568 AF038561 AF294793 AF229407 X65631 X75480 AF229409	AF010290 AF229410 Y13733 AJ005702 AF229406 AJ231135 AF229410	AF229408 AF229411 D86590 D16624 AF109157 AF207552 AF207553 AF207559 AF207559	232 Y12072 U20771 U15777 AB053487 AB053486 AF048747 X84695 X82542 AF019892
CAN79625.1 AAF43140.1 AAC35845.1 CAC07423.1	trichocarpa CAA79622.1 AAC07987.1 AAG15553.1 AAK00679.1 CAA46585.1 CAA53211.1	AAB70908.1 AAK00682.1 CAA74070.1 CAA06687.1 AAK00678.1 CAA13177.1	AAKOO680.1 AAKOO683.1 BAA19487.1 BAA04046.1 AAD18000.1 AAF23412.1 AAF23411.1 AAF23411.1 AAF23410.1 AAF23416.1	SEQ ID NO. CAA72793.1 AAA87729.1 AAA86687.1 BAB40666.1 BAB40665.1 AAC73051.1 CAA59170.1 CAA57892.1 AAC78557.1
7 . 2 . 2	Arabis turrita Aubrieta deltoidea Alliaria petiolata Arabis procurrens Arabis jacquinii Arabis blepharophylla Aubrieta deltoidea Microthlaspi perfoliatum	Aethionema grandiflora Arabis alpina Arabis alpina Raphanus sativus Ionopsidium abulense Brassica napus	Fragaria x ananassa Fragaria x ananassa Mesembryanthemum crystallinum Petroselinum crispum Apium graveolens Medicago sativa Apium graveolens Stylosanthes humilis Stylosanthes humilis Lvcopersicon esculentum	aeda bies adiata bies bies adiata aeda na tab
AF144540 AF144535 AF076335 AF112096	AF112107 AF174529 AF144537 AF112105 AF112097 AF112109 AF112109	AF112082 AF112083 AF112084 AF031922 AF144542 AF076333	231 U63534 AF320110 U79770 X67817 U24561 AF083333 AF067082 L36823 L36456 AF146691	237991 AJ001924 U62394 X72675 AJ001926 AJ001925 AF060491 237992 X62343 X62344
AAG43358.1 AAG43353.1 AAC31913.1 AAE23571.1	AAF23582.1 AAG43355.1 AAG43355.1 AAF23580.1 AAF23562.1 AAF23584.1 AAG43354.1	AAF23557.1 AAF23558.1 AAF23559.1 AAB87072.1 AAG43360.1	SEQ ID NO. AAD10327.1 AAK28509.1 AAB38503.1 CAA48028.1 AAC15467.1 AAC35846.1 AAC61854.1 AAA74882.1 AAA74882.1	CAA86072.1 CAA05095.1 AAB38774.1 CAA51226.1 CAA05097.1 CAA05096.1 AAC31166.1 CAA86073.1 CAA44216.1 CAA44217.1

		222	
Glycine max Glycine max Lycopersicon peruvianum Lycopersicon peruvianum Medicago sativa Glycine max Pisum sativum	Brassica rapa Nicotiana tabacum Daucus carota Castanea sativa Quercus suber Medicago sativa Fragaria x ananassa Glycine max Glycine max		Lycopersicon esculentum Oryza sativa Lycopersicon esculentum Oryza sativa Glycine max Pennisetum glaucum Lycopersicon esculentum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Pseudotsuga menziesii
246951 246952 X67601 AF208544 AF235958 246955 AJ010644	236 AF022217 AF166277 X53851 AJ009880 AJ000691 X58711 U63631 M11318	X01104 X53852 AB017273 AJ237596 U08601 M33899 U46545 Z95153 X59701 U46544 AF123257	AF123255 U83669 X56138 D12635 M11317 X94193 AF123256 U83671 N80939 U83670
CAA87075.1 CAA87076.1 CAA47870.1 AAF74563.1 AAF37579.1 CAA87079.1 CAA09300.1	SEQ ID NO. AAB72109.1 AAD49336.1 CAA37847.1 CAA08908.1 CAA1547.1 AAC39360.1 AAB03893.1	CAA25578.1 CAA37848.1 BAA33062.1 CAB55634.2 AAA61632.1 AAA33672.1 AAB63311.1 CAA42222.1 AAB63310.1 AAB63310.1	AAD30452.1 AAC78392.1 CAA39603.1 BAA02160.1 AAA33974.1 CAA63903.1 AAD30453.1 AAC78394.1 AAC78394.1 AAC783910.1 AAC78393.1
Parthenium argentatum Artemisia annua Artemisia annua Oryza sativa Oryza sativa Artemisia annua Oryza sativa Artemisia annua	Nicotiana tabacum Parthenium argentatum Parthenium vulgare Spinacia oleracea Hordeum 'vulgare Mesembryanthemum crystallinum Nicotiana sylvestris Nicotiana tabacum	Gossypium hirsutum Lycopersicon esculentum Zantedeschia aethiopica Helianthus annuus Helianthus annuus Pisum sativum Hordeum vulgare Lycopersicon esculentum Chlamydomonas sp. W80 Chlamydomonas reinhardtii Triticum aestivum	Nicotiana tabacum Lycopersicon peruvianum Glycine max Glycine max Lycopersicon peruvianum Lycopersicon esculentum Nicotiana tabacum Zea mays
X82543 U36376 AF112881 D85317 AB021747 AF136602 AB021979 AF149257 AF164026	U97330 AF005201 233 AJ238697 D63425 AJ238745 AJ250951 X60219 AB041518	AF037051 X14762 AF053311 X14707 X14429 AJ000508 AJ238744 Y14763 AB009083 AF014927 AJ010455	234 AB014483 X55347 246953 246956 X67600 X67599 AB014484
CAA57893.1 AAC49452.1 AAD17204.1 BAA19856.1 BAA36276.1 AAD32648.1 AAD37789.1 AAD37789.1		AAB94892.1 CAA75054.1 AAC78466.1 CAA75099.1 CAA74775.1 CAA04142.1 CAA59894.1 CAA75055.1 BAA83594.1 AAB66330.1 CAA09194.1	

	223		
	Lycopersicon escuientum Triticum aestivum Lycopersicon escuientum Lycopersicon escuientum Euphorbia esula Picea mariana Oryza sativa	5 5 5	Lycopersicon esculentum Glycine max Pisum sativum Pisum sativum Glycine max Pisum sativum Pisum sativum
X94191 M33899 X58711 X65725 U81385 U83671 U83669 X56138 M80939 X60820	AF123256 114444 AF123257 238 AF123259 AF221856 AF051230 215018	239 AJ011914 240 J03919 X68215 J03920 X68216 X68218 X68218 X68218	AJ249996 241 J03920 X68218 X68217 J03919 X68215
CAA63901.1 AAA33672.1 CAA41547.1 CAA46641.1 AAB39856.1 AAC78394.1 AAC78392.1 CAA33910.1 AAA33910.1 CAA43210.1	AAD30453.1 AAA34294.1 AAD30454.1 SEQ ID NO. AAD30456.1 AAF31705.1 AAC32131.1 CAA78738.1	SEQ ID NO. CAB57979.1 SEQ ID NO. AAA33945.1 CAA48297.1 AAA33944.1 CAA48298.1 CAA48299.1 AAD50278.1	CAB61882.1 SEQ ID NO. AAA33944.1 CAA48299.1 AAA33945.1 CAA48297.1 CAA48297.1
Oryza sativa Oryza sativa Chenopodium rubrum Pseudotsuga menziesii Pennisetum glaucum Pisum sativum Zea mays Triticum aestivum Pennisetum glaucum Oryza sativa	Lycopersicon esculentum Pisum sativum Helianthus annuus Prunus dulcis Petroselinum crispum Lycopersicon esculentum Picea glauca Ipomoea nil	Medicago sativa Triticum aestivum Picea abies Zea mays Zea mays Zea mays Ipomoea nil Funaria hygrometrica Lilium longiflorum Funaria hygrometrica	Pseudotsuga menziesii Pseudotsuga menziesii Fragaria x ananassa Funaria hygrometrica Funaria hygrometrica Lilium longiflorum Lycopersicon esculentum Helianthus annuus
X60820 M80938 X53870 X92984 X94191 M33900 X65725 X13431 X94192 U81385	237 U72396 M33901 Z29554 AF159562 X95716 AF090115 L47717 M99430	X98617 X58279 X99346 X54075 X54076 S59777 M99429 AF089845 D21817	X92983 X92983 X92984 U63631 AF087640 AF089843 D21816 AF123255 U46545
CAA43210.1 AAA33909.1 CAA37864.1 CAA63571.1 CAA63901.1 AAA33671.1 CAA46641.1 CAA31785.1 CAA63902.1	SEQ ID NO. 2 AAC14577.1 AAA33670.1 CAA82653.1 AAD41409.1 CAA65020.1 AAC36312.1 AAB01561.1 AAB39336.1	CAA67206.1 CAA67206.1 CAA38012.1 CAA38013.1 AAB26481.1 AAD09184.1 BAA04841.1	CAA63570.1 CAA63571.1 CAA63571.1 AAD09178.1 AAD09182.1 BAA04840.1 AAD30452.1 AAB63311.1 CAA31785.1

AAD50278.1	AF169830	Glycine max	AAF65770.1 AAD22975.1	AF242312 AF126551	Euphorbia esula Solanum tuberosum subsp.
SEO ID NO.	242		tuberosum		
AAD32142.1	AF123504	Nicotiana tabacum	AAG03106.1	AC073405	Oryza sativa
CAA48297.1	X68215	Pisum sativum	CAA48638.1	x68678	Zea mays
CAA48298.1	X68216	Pisum sativum			
AAD32143.1	AF123505	Nicotiana tabacum		262	
AAD32146.1	AF123508	Nicotiana tabacum	AAB65777.1	097522	Vitis vinifera
AAA33945.1	J03919	Glycine max	AAB65776.1	097521	Vitis vinifera
BAA85821.1	AB026822	Cucumis sativus	AAG53609.1	AF280437	Secale cereale
AAA33944.1	J03920	Glycine max	CAA53626.1	X76041	Triticum aestivum
CAA48300.1	X68218	Pisum sativum	BAA03750.1	D16222	Oryza sativa
CAA48299.1	X68217	Pisum sativum	CAB01591.1	278202	Persea americana
AAC13253.1	AF022013	Lycopersicon esculentum	CAA30142.1	X07130	Solanum tuberosum
AAD50278.1		Glycine max	BAA03751.1	D16223	Oryza sativa
BAA95840.1	·	Oryza sativa			
		·	SEQ ID NO.	263	
SEO ID NO.	244		AAD10836.1	052079	Solanum tuberosum
AAC49376.1	U43840	Glycine max	BAA83352.1	AP000391	Oryza sativa
AAC49374.1	043838	Glycine max	BAA90508.1	AP001111	Oryza sativa
CAC24490.1		Pisum sativum	BAA90507.1	AP001111	Oryza sativa
AAC49375.1	1143839	Glycine max	BAA94511.1	AB041505	
T.0.0050W					
SEQ ID NO.	249		SEQ ID NO. 2	265	
CAA48630.1	X68664	Solanum tuberosum	AAC35496.1	AF052690	Raphanus sativus
AAG29840.1	AF307843	Chlamydomonas reinhardtii	AAC99310.1	AF052585	Malus x domestica
AAG29839.1	AF307842	Chlamydomonas reinhardtii	AAC99309.1	AF052584	Malus x domestica
		•	AAG27547.1	AF269128	Brassica nigra
SEQ ID NO.	251		AAC27696.1	AF016011	Brassica napus
AAC08401.1	AF053564	Mesembryanthemum crystallinum	AAC27694.1	AF016009	Brassica napus
AAG14454.1	AF283706	Tulipa gesneriana	AAC27695.1	AF016010	Brassica napus
AAG14455.1	AF283707	Tulipa gesneriana	AAG27546.1	AF269126	Brassica nigra
AAG14456.1	AF283708		AAG24863.1	AF300700	Ipomoea nil
			AAD22518.1	AF001136	Pinus radiata
SEQ ID NO.	257		BAA33205.1	AB001887	Oryza sativa
BAA02720.1	D13502	Glycine max	BAA33201.1	AB001883	Oryza sativa
			BAA33203.1	AB001885	Oryza sativa
SEQ ID NO.	259		BAA33206.1	AB001888	Oryza sativa
BAA84791.1	AP000559	Oryza sativa	BAA33202.1	AB001884	Oryza sativa
CAA10766.1	AJ132763	Pseudotsuga menziesii	BAA33204.1	AB001886	Oryza sativa
AAC05639.1	AF052206	Chlamydomonas reinhardtii	BAA33200.1	AB001882	Oryza sativa

AB036786 Oryza sativa AF162662 Kalanchoe fedtschenkoi AF162661 Kalanchoe fedtschenkoi X58194 Oryza sativa X96723 Medicago sativa D84507 Zea mays S82324 Zea mays AJ007366 Zea mays AF234652 Mesembryanthenum crystalli	AF349961 Daucus carota L18908 Nicotiana tabacum X92367 Spinacia oleracea X92350 Spinacia oleracea AF031542 Fritillaria agrestis AF061508 Zea mays X90414 Spinacia oleracea	7 D45074 Panicum miliaceum C5 D45073 Panicum miliaceum D45075 Panicum miliaceum X11220 Solanum tuberosum NJ299250 Nicotiana tabacum		n 4.0 ሺህ W
BAB21589.1 AB0367 AAF06970.1 AF1626 AAF06969.1 AF1626 CAA41172.1 X58194 CAA65500.1 X96723 BAA12691.1 D84507 AAB47181.1 S82324 CAA07481.1 AJ0073 AAF40430.1 AF2346	SEQ ID NO. 276 AAK30202.1 AE3499 AAA53296.1 L18908 CAA63112.1 X92367 CAA63107.1 X92350 AAB86852.1 AF0315 AAC24573.1 AF0615 CAA62040.1 X90414	SEQ ID NO. 277 BAA08104.1 D45 BAA08103.1 D45 BAA08105.1 D45 CAA72107.1 Y11		CAC2/140.1 AJ1 CAA69726.1 Y08 BAA31583.1 AB0 CAB61741.1 AJ2 BAA31584.1 AB0 BAA92520.1 AP0 SEQ ID NO. 278 CAA64729.1 X95
Solanum tuberosum Solanum tuberosum Dactylis glomerata Cucumis melo Solanum tuberosum Solanum tuberosum Oryza sativa	Oryza sativa Brassica oleracea Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Oryza sativa	Oryza sativa Triticum aestivum Ipomoea batatas Mesembryanthemum crystallinum Oryza sativa Glycine max	Daucus carota Zea mays Daucus carota Glycine max Dunaliella tertiolecta Solanum tuberosum	Zea mays Oryza sativa Zea mays Chlamydomonas eugametos Zea mays Zea mays Zea mays Zea mays Zea mays Solanum tuberosum Zea mays
268 X66284 X80236 AY011123 AF297643 X80237 X80235 D25241	274 AP001550 AF180356 AF203481 AF203480 D26601 AF194414 U73937	AF194413 AB011670 D87707 AF090835 X81394 AF128443	X56599 D85039 X83869 U69174 AF216527 AF115406	U28376 U55768 AF239819 Z49233 Y11649 Y11526 X61387 X95997 AF271237
SEQ ID NO. 2 CAA46990.1 CAA56520.1 AAG42149.1 AAK07827.1 CAA56521.1 CAA56519.1		AAF23900.1 BAA34675.1 BAA13440.1 AAD17800.1 CAA57157.1 AAD23582.1	CAA39936.1 BAA12715.1 CAA58750.1 AAB80693.1 AAF21062.1 AAD28192.2 BAA05649.1	AAA69507.1 AAB05457.1 AAG36872.1 CAA89202.1 CAA72362.1 CAA72290.1 CAA43659.1 CAA65244.1 AAF76187.1

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	Brassica oleracea	Adonis palaestina	reweri	Nicotiana tabacum	Adonis palaestina	iva	Nicotiana tabacum	ativa	reweri	recta	ca acuminata	ca acuminata	antiana	erecta	sativa	Hevea brasiliensis	Hevea brasiliensis	ccus pla		ccus plu	tabacum	onas re	carota			iva		Mesembryanthenum	onicus	onicus	themum	sativa		tabacum	tabacum	Mesembryanthemum	Mesembryanthemum	ratica		
	assica	onis pa	Clarkia breweri	cotiana	onis pa	Oryza sativa	cotiana	Lactuca sativa	Clarkia breweri	Tagetes erecta	Camptotheca	Camptotheca	Clarkia xantiana	Tagetes e	Lactuca s	vea bra	vea bra	Haematococcus	Haematococcus	Haematococcus	Nicotiana	Chlamydomonas	Daucus ca			Oryza sativa	Zea mays	sembryan	Lotus japonicus	Lotus japonicus	Mesembryanthenum	Medicago :	Zea mays	Nicotiana	Nicotiana	sembryar	sembryar	agus sylvatica		
	Br	Ado	บี	Nį	Ad	OĽ	Ni	Ľa	S	Ta	Car	Car	CIS	Ta	La	He	He	Ha	Ha	Ha	Nic	ប	Dai			Or	Zei	Me	Loi	Lot	Mes	Mec	Zeć	Nic	Nic	Mes	Mes	Fac		
	AF236092	AF188060	048963	AB049815	AF188061	AF188065	AB049816	AF188063	X82627	AF188064	AF031079	AF031080	048962	AF251011	AF188062	AF111843	AF111842	AF082325	AF082326	AB019034	Y09634	AF082869	AF227951			AF075603	U81960	AF075580	AF092431	AE092432	AF075582	X11607	AF213455	AJ277087	AJ277086	AE075579	AF075581	AJ298987		
10. 292															Ī					·					10. 293	_												۲.		NO. 294
SEQ ID NO	AAF36996.1	AAF29973.1	AAB67743.1	BAB40973.1	AAF29974.1	AAF29978.1	BAB40974.1	AAF29976.1	CAA57947.1	AAF29977.1	AAB94132.1	AAB94133.1	AAB67742.1	AAG10423.1	AAF29975.1	AAD41766.1	AAD41765.1	AAC32208.1	AAC32209.1	BAA33978.1	CAA70850.1	AAC32601.1	AAF91499.1		SEQ ID NO	AAC26828.1	AAB93832.1	AAC36698.1	AAD17804.1	AAD17805.1	AAC36700.1	CAA72341.1	AAG43835.1	CAC10359.1	CAC10358.1	AAC36697.1	AAC36699.1	CAC09575		SEQ ID N
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tabacum	tabacum	hybrida	iva	napus	napus	olerace	ıs niger	is niger	ramoniu	uberosu	uberosu	ıs niger	ıs niger	uberosu	ramoniu	ramoni			iva			ulgare	aestivu	uberosu	ulgare			stoloni	zia cal	zia cal	omnifer			uberosu	annum	1gma pl	igma pl	igma pl	ecınum	
Nicotiana	Nicotiana	Petunia x	Oryza sati	Brassica napus	Brassica napus	Brassica oleracea	Hyoscyamus	Hyoscyamus	Datura stramonium	Solanum tuberosum	Solanum tuberosum	Hyoscyamus	Hyoscyamus	Solanum tuberosum	Datura stramonium	Datura stramonium			Oryza sati	Zea mays	Zea mays	Hordeum vu	Triticum aestivum	Solanum tuberosum	Hordeum vulgare			Berberis stolonifera	chschol	Eschscholz	Papaver somniferum			Solanum tuberosum	Capsicum annuum	aterost	Craterostigma		cicer arie	
Ņ	Νį	Pe.	Ö				Hy	Hy	Da	So	လွ	Hy	Hy	S	Da	Da			o	2e	2e		_		H			Be	E S	E	Pa			So	S	S	S	ਲੇ ਹੋ	3	
X13862	X13861	AJ003124	AJ003025	AF181724	AF181723	AF181725	D88156	AB026544	L20473	AJ292343	AJ245634	L20485	AB026545	AJ307584	L20474	L20475			AB015615	AF030882	018908	£142589	AF142590	AF142591	AF142588			AF049347	S65550	AF005655	AF025430			250099	Y15781	246648	246647	246646	ABU25004	
		-												•		•		. 279									. 281						. 283						•	
CAA74177.1	CAA74176.1	CAA05879.1	CAA05816.1	AAF14562.1	AAF14561.1	AAF14563.1	BAA13547.1	BAA85844.1	AAA33281.1	CAC19810.1	CAB52307.1	AAB09776.	BAA85845.1	CAC34420.1	A33282.	AAA33280.1		SEQ ID NO.	BAA29041.1	AAB97167.1	AAA91298.1	AAD33889.1	AAD33890.1	AAD33891.1	AAD53260.1		SEQ ID NO.	AAD17487.1	AAB20352.1	AAC39358.1	AAC61839.1		SEQ ID NO.	CAA90427.1	CAA75777.1	CAA86609.1	CAA86608.1	CAA86607.1	BAA / 6432.1	
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Pisum sativum Oryza sativa Hordeum vulgare Lycopersicon esculentum Pinus sylvestris Nicotiana tabacum Vigna radiata Lycopersicon esculentum Lycopersicon esculentum	Pyrobotrys stellata Pyrobotrys stellata Alonsoa meridionalis Hordeum vulgare Zea mays Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Pyrobersicon sylvestris Pinus sylvestris Picea abies Picea abies	Glycine max Nicotiana sylvestris Nicotiana sylvestris Pinus contorta Hordeum vulgare Pinus thunbergii Glycine max Vigna radiata	Nicotiana plumbaginifolia Nicotiana tabacum Polystichum munitum	Lycopersicon esculentum Silene latifolia Zea mays Silene latifolia Zea mays Malus x domestica Zea mays
AF002248 AF094775 AF287276 X15258 X58517 X64198 AF139470 M17633	X69434 X71965 AF241525 AF218305 U23190 AF094776 J03558 M32606 X58514 X58515 X81809	M21396 AB012640 AB012638 X67714 X63052 S73603 U01964 AF139467	M21398 X58229 M34396 298	AE016845 X18519 AE250047 Y18517 AE250048 AF250049 AF250049
AAC67557.1 AAC67557.1 AAF90200.1 CAA33330.1 CAA41407.1 CAA45523.1 AAD27882.2 AAA34140.1	CAA50403.1 CAA50763.1 AAF44703.1 AAF23819.1 AA64716.1 AAA34186.1 AAA34146.1 CAA41404.1 CAA41405.1 CAA57408.1	AAA33949.1 BAA25395.1 BAA25393.1 CAA4777.1 AAC78690.1 AAA50172.1 AAD27879.2	AAA34056.1 CAA41187.1 AAA68425.1 SEO ID NO.	
Egeria densa Oryza sativa Apium graveolens Medicago sativa subsp. sativa Glycyrhiza echinata Glycyrhiza glabra Glycyrrhiza glabra	Nicotiana tabacum Oryza sativa Triticum aestivum Triticum aestivum Triticum aestivum Oryza sativa Oryza sativa Picea mariana Picea abies Picea mariana Glycine max		Oryza sativa Nicotiana tabacum Oryza sativa Dendrobium grex Madame Thong-In	Petunia x hybrida Lycopersicon esculentum Lycopersicon esculentum Pisum sativum Pinus sylvestris Nicotiana tabacum
AJ225806 U46758 U83687 U13924 U13925 D83718 D86559	295 AB025714 D16507 AF224499 AF224498 AB007623 AB016071 U90092 AF063248 U90091	AB004785 AJ276389 AB028882 AB025715 AB028884 AB028883 AB028883	AB007624 AB025573 AB007625 AF100326	296 M21317 M20241 X14036 X81962 X58516 X82497
		BAA25546.1 CAB88029.1 BAA79223.1 BAA79225.1 BAA79225.1 BAA79226.1 BAA76903.1	BAA77818.1 BAA76750.1 BAA77819.1 AAC79869.1	SEQ ID NO. 3 AAA33711.1 AAA34159.1 CAA32197.1 CAA57492.1 CAA41406.1
CAA12646.1 AAC50046.1 AAB97617.1 AAB41555.1 AAB41556.1 BAA12084.1 BAA13114.1 BAA13113.1	SEQ ID NO. BAA76904.1 BAA03959.1 AAF32399.1 AAF32398.1 BAA77817.1 BAA31688.1 AAD00692.1 AAD00691.1		A B B A A A A A A A A A A A A A A A A A	0 0 0 0 5 5 0

AAK19620.1	AF336287	Gossypium hirsutum	AAB29483.1	868879	Brassica napus
BAA76895.1		Lycopersicon esculentum	AAB29484.1	S68727	Brassica napus
AAC18914.1		Petunia x hybrida			
BAA76896.1	AB022687	Lycopersicon esculentum	SEQ ID NO.	310	
			AAC49184.1	040402	Hevea brasiliensis
SEQ ID NO.	299		CAA11219.1	AJ223281	Manihot esculenta
AAB70241.1	AF016845	Lycopersicon esculentum	CAA82334.1	229091	Manihot esculenta
CAB52219.1	X18519	Silene latifolia			
CAB52218.1	X18517	Silene latifolia	SEQ ID NO.	313	
AAE97517.1	AF250047	Zea mays	AAA80575.1	013148	Pennisetum ciliare
AAF97518.1	AF250048	Zea mays	AAF34174.1	AF195243	Chlamydomonas reinhardtii
AAK19620.1	AF336287	Gossypium hirsutum			
AAE97519.1	AF250049	Zea mays	SEQ ID NO.	314	
AAC18914.1	U94748	Petunia x hybrida	AAA34085.1	M93436	Nicotiana tabacum
BAA76895.1	AB022686	Lycopersicon esculentum	AAA34054.1	M96432	
AAF37386.1	AF134835	Medicago truncatula	BAB41080.1	AB052729	
AAB63030.1	U83921	Daucus carota			
			SEQ ID NO.	315	
SEQ ID NO.	300		CAA67291.1	X98739	Pisum sativum
AAF97517.1	AF250047	Zea mays	CAA67290.1	X98738	
CAB52219.1	X18519	Silene latifolia	CAA10643.1	AJ132349	
CAB52218.1	X18517	Silene latifolia			
AAF97518.1	AF250048	Zea mays	SEQ ID NO.	316	
AAF97519.1	AF250049	Zea mays	AAB97366.1	AF039531	Oryza sativa
AAB70241.1	AF016845	Lycopersicon esculentum			•
BAA76895.1		Lycopersicon esculentum	SEQ ID NO.	317	
AAF27919.1		Malus x domestica	AAK15322.1	AE332134	Chloroplast Medicado sativa
BAA76896.1	AB022687	Lycopersicon esculentum	BAA33755.2	AB017480	
			AAD17230.1	AF117339	Nicotiana tabacum
SEQ ID NO.	305		CAA09935.1	AJ012165	Capsicum annuum
AAB94599.1	AF024652	Glycine max	BAA57906.1	AB001684	Chlorella vulgaris
AAB94598.1	AF024651	Glycine max	CAA06853.1	AJ006095	Cicer arietinum
SEQ ID NO.	308		SEQ ID NO.	318	
CAA54255.1	X76932	Spinacia oleracea		AF190450	Anticonnia mentine
CAA58020.1	X82776	Pisum sativum			היבינוודם ווומדדוום
				319	
SEQ ID NO.	309		AAC61839.1	AF025430	Papaver somniferum
AAB29482.1	S68726	Brassica napus	AAC39358.1	AF005655	Eschscholzia californica
AAA66068.1	U14665	Brassica napus	AAB20352.1	865550	Eschscholzia californica
AAA52230.1	016751	Brassica oleracea	AAD17487.1	AF049347	

			CAA55047.1	X78213	Parthenium argentatum
ON OT ORS	320				
3998.1	AF215837	Apium graveolens var. dulce		331	2
AAF74566.1	AE215852	Nicotiana tabacum	CAA78387.1	78877	retuind A Hybrida
DDF74565.1	AF215851	Spinacia oleracea	CAA66952.1	X98308	Lycopersicon escutentum
AAF74568.1	AF215854	Zea mays	BAA88222.1	AB028650	Nicotiana tabacum
1.000112044	NE015853	Solanum tuberosum	BAA81731.1	AB029160	Glycine max
AAE /430/.1	AF413033	Chlorella kessleri	BAA81730.1	AB029159	Glycine max
CAABBBIS.I	10/320 VEE3/0	Chlorella kesaleri	AAB41101.1	U72762	Nicotiana tabacum
CAA39036.1	A33349		BAA88224.1	AB028652	Nicotiana tabacum
BABISE64.1	AB032803	Utois faha	BAA88223.1	AB028651	Nicotiana tabacum
	01000	Vicat rate Nicotions tabacin	BAA81732.1	AB029161	Glycine max
CAA47324.1	X66836	Alovella kesaleri	BAA88221.1	AB028649	Nicotiana tabacum
CAA53192.1	_	CILCLGILL ACCULANT	BAA81736.1	AB029165	Glycine max
BAB19863.1	AB052884	ULYZA SALLVA	BAA81733.2	AB029162	Glycine max
AAB06594.1	U38651	Medicago Liuncacura	CAA72217.1	X11414	Oryza sativa
CAA04511.1	AJUOTOPT	VICES VIIILALA	CAA72185.1	Y11350	Oryza sativa
AAA79761.1	L08196	Kicinus communits	AAG13574.1	AC037425	Oryza sativa
CAA09419.1	AJ010942	Lycopersicon escurencial	ר אואסראתת	AF336283	Gossvoium hirsutum
CAA70777.1	X09590	s viniter	7,78386 1	213996	Petunia x hybrida
CAB52689.1	AJ132224	Lycopersicon esculentum	1.0000/840	00000TR	Antirrhinum majus
BAB19862.1	AB052883	Oryza sativa	CAD40099.1	A0000272	Orvza sativa
CAB06079.1	283829	Picea abies	CAA/2218.1	111413 V00010	Tuchersion esculentum
BAA85398.1	AP000615	Oryza sativa	CAA6/600.1	799210	
AAD55054.1	AF173655	Beta vulgaris	CAA64614.1	X95296	1001
CAR52688.1	AJ132223	Lycopersicon esculentum	AAG36774.1	AF210616	Zea mays
CAB52690 1	A.T132225	Lycopersicon esculentum	AAA33500.1	M73028	Zea mays
1.0002000	DE15696	Nicotiana tabacum	AAK19618.1	AF336285	Gossypium hirsurum
DAD 1545 1	DE042950	Nicotiana tabacum	AAF22256.1	AF161711	Pimpinella brachycarpa
ביטבטטטיים	900450GA		BAA23338.1	D88618	
DAMACU344.1		Solanım tuberosum	CAA67575.1	X99134	Lycopersicon esculentum
CAMO/JULY	15.605 15.605	Solanim tuberosim	AAK19619.1	AF336286	Gossypium hirsutum
AAD36039.1	AE 100000	Twoopersion esculentum	CAA72186.1	X11351	Oryza sativa
	AF 0220 13		CAA65525.1	X96749	Oryza sativa
ON OT COS	PCE		AAK19611.1	AF336278	Gossypium hirsutum
SEQ ID NO.	1162751	2002 E022	BAA23337.1	D88617	Oryza sativa
AAB/10/0.1	0627Jt		AAK19615.1	AF336282	Gossypium hirsutum
BAA92960.1	AF00130	7 C T T T T T T T T T T T T T T T T T T	CAA72187.1	X11352	Oryza sativa
AAA91168.1	040147		CAA50221.1	X70876	Hordeum vulgare
AAB71079.1	162/52	Zea mays	CAB50224 1	X70879	Hordeum vulgare
CAA4/042.1	X66411	Chidanydomonds remmaratit	CAA50222.1	X70877	Hordeum vulgare
CAA60251.1	V86753 X86553		AAK19617.1	AF336284	Gossypium hirsutum
+ + + + + + + + + + + +	1				

Oryza	DIU/52 Oryza sativa AF136268 Oryza sativa subsp. japoni	um aestivum	17					Solanum	Solanum	·			Manihot	63 Hordeum		339	1271719	U09194 Mesembryanthemim crystall.		Lycopersicon escu	85	Z28386 Ricinus communis	AJ132581 Hevea brasiliensis	Hevea brasiliensi	Oryza		X55981 Zea mays	X66412 Chlamydomonas reinhardtii	X58109 Lycopersicon esculentum	S79816 Echinochloa phyllopogon	_	AF082596 Leavenworthia crassa		Leavenworthia		Leavenworthia	Lycopersicon e	
BAA01855.1	AAD28284.1	CAA72987.1	AAG27621.1	AAA82735.1	BAAUL854.1	AAC304/1.1	CAB40749 1	CAB40745 1	CAB40744 1	BAA85762.1	BAB40335.1	CAA49371.1	CAA49370.1	AAC72336.1		SEQ ID NO.		AAA21277.1	AAB34986,1	CAA41115.1	CAB75428.1	CAA82232.1	CAC00533.1	CAC00532.1	AAC49173.1	AAD04187.1	CAA39454.1	CAA47043.1	CAA41116.1	AAB35826.2	BAA04612.1	AAC34559.1	AAC34558.1	AAC34557.1	AAC34555.1	AAC34554.1	AAD46409.1	AAC34556.1
Hordeum vulgare		Pisum sativum	Pisum sativum	Fisum sativum		Pignm sativnm	Solanum tuberosum	Solanum tuberosum	Phaseolus vulgaris		Triticum aestivum	Oryza sativa	Zea mays	Solanum tuberosum	Oryza sativa	Solanum tuberosum	Triticum aestivum	Triticum aestivum	Oryza sativa	Aegilops tauschii	Hordeum vulgare	Triticum aestivum	Pisum sativum	Zea mays	Zea mays	Triticum aestivum	Aegilops tauschii	Hordeum vulgare	Ipomoea batatas	Manihot esculenta	Solanum tuberosum	Phaseolus vulgaris	Solanum tuberosum	Triticum aestivum	Triticum aestivum	Triticum aestivum	Triticum aestivum	Sorghum bicolor
X99973	334	AF115574	011716	MIRZOU	337	60008X	AJ011885	AJ011888	AB029548	AJ011890	AE076679	D10838	U65948	AJ011889	AB023498	AJ000004	X11282	AF286319	D16201	AE076680	AF064561	AF338432	X80010	AF072725	L08065	066376	AF338431	AF064560	AB042937	X77012	X08786	AB029549	x69805	AJ237897	AJ237897	AJ237897	AF286318	AF169833
CAA68235.1		AAD25355.1	AABIB669.1	HAA33002.1	SEO ID NO.		CAB40743.1	CAB40746.1	BAA82348.1	CAB40748.1	AAD30186.1	BAA01616.1	AAB67316.1	CAB40747.1	BAA82828.1	CAA03846.1	CAA72154.1	AAG27623.1	BAA03738.1	AAD30187.1	AAC69754.1	AAK26822.1	CAA56320.1	AAC33764.1	AAA18571.1	AAB17086.1	AAK26821.1	AAC69753.1	BAB40334.1	CAA54308.1	CAA70038.1	BAA82349.1	CAA49463.1	CAB40981.1	CAB40979.1	CAB40980.1	AAG27622.1	AAD50279.2

D26573 Daucus carota AF145730 Oryza sativa						15					AF244889 Glycine max	AF244890 Glycine max	Y12531 Brassica oleracea	AF244888 Glycine max	U28007 Lycopersicon esculentum	AF220603 Lycopersicon esculentum	U59316 Lycopersicon esculentum	U67422 Zea mays S	Pinus sylvestris	AF172282 Oryza sativa		93	U20948 Ipomoea trifida	Zea mays		91 Lycopersicon	U59317 Lycopersicon pimpinellifolium	AF197947 Glycine max		51	Z73295 Catharanthus roseus					AF194945 Nicotiana tabacum	X82840 Cucumis melo		345
BAA05622.1 AAD37699.1	4	SEQ ID NO.	AAK21965.1	AAG03090.1	BAA94509.1	AAG16628.1	AAB61708.1	BAA94510.1	AAF43496.1	AAK11674.1	AAF91323.1	AAF91324.1	CAA73134.1	AAF91322.1	AAC61805.1	AAF76313.1	AAB47421.1	AAB09771.1	CAC20842.1	AAF34428.1	AAK11568.1	AAK11569.1	AAC23542.1	AAB93834.1	AAE76307.1	AAK11567.1	AAB47424.1	AAF59906.1	AAF59905.1	BAA92954.1	CAA97692.1		SEQ ID NO.	BAA06108.1	AAC26045.1	AAG28426.1	CAA58047.1		SEQ ID NO.
	Oryza sativa	Populus nigra	Brassica napus	Populus nigra	Lophopyrum elongatum		Brassica napus	Oryza sativa	Glycine max	Glycine max	Oryza sativa	Lycopersicon esculentum	Orvza meveriana	Zea mays	Zea mays	Daucus carota	Catheranthus roseus	Lycopersicon hirsutum	Nicotiana tabacum		u	Lycopersicon pimpinellifolium	Nicotiana tabacum	Lycopersicon hirsutum	Brassica oleracea			Oryza sativa	Oryza sativa	Glycine max	Lycopersicon esculentum	Daucus carota	Pimpinella brachycarpa	Pimpinella brachycarpa	·	Helianthus annuus	Physcomitrella patens	Craterostigma plantagineum	Physcomitrella patens
340	AB023482	AB041503	AY007545	AB041504	AE339747	AF131222	AX028699	AC073405	AF249317	AF249318	69000	028007	AE290411	AF023164	AF023165	1193048	273295	AF318490	AF302082	AF285172	059317	AF220602	AF142596	AF318491	X12531		341	AF139210	AF145729	AF184278	X91212	D26578	X95193	X94375	AE139497	AF339748	AB028077	AJ005833	AB028079
SEO TD NO. 3		BAA94509.1	AAG16628.1	BAA94510.1	AAK11674.1	AAE43496.1	AAK21965.1	AAG03090.1	AAF91336.1	AAE91337.1	CAB51834.1	AAC61805.1		AAC27894.1	1 2867744 1	1.802130M	C897647	AAK11566.1	AAG25966.1	AAG00510.1	AAB47424.1	AAF76307.1	AAF66615.1	AAK11567.1	CAA73134.1		SEO TO NO.		AAD37698.1	AAF01765.1	CAA62608.1	BAA21017.1	CAA64491.1	CAA64152.1	AAD38144.1	AAA63768.2	BAA93465.1	CAA06728.1	BAA93467.1

		napı															2:	32														
Brassica oleracea Brassica oleracea		psb.	Brassica oleracea					Ipomoea trifida	Brassica oleracea	Brassica rapa	Brassica rapa	Brassica rapa	Brassica oleracea	Brassica rapa	Brassica oleracea						Brassica napus	Oryza sativa					Oryza sativa	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			oryza sativa	Zea mavs
X12531 M76647	U82481	AU2434/9 AB032473	218921	M97667	U00443	D30049	D88193	U20948	AB032474	D38563	D38564	AB000970	Y14286	AB054061	X12530	X98520	X18259	Y14285	Y18260	AF088885	AY028699	L27821	AJ243961	AP001551	AB030083	368	AP002537	373	7000	374 AP003047	101777	375 AF015269
CAA73134.1 AAA33000.1	AAB93834.1	BAA92836 1	CAA79355.1	AAA33008.1	AAA62232.1	BAA06285.1	BAA21132.1	AAC23542.1	BAA92837.1	BAA07576.1	BAA07577.2	BAA23676.1	CAA74662.1	BAB21001.1	CAA73133.1	CAA67145.1	CAB41878.1	CAA74661.1	CAB41879.1	AAD52097.1	AAK21965.1	AAA33915.1	CAB51836.1	BAA92954.1	BAA82556.1		BAB16860.1	SEQ ID NO.	1	SEQ ID NO. BAB32917.1	1.0000000	SEQ ID NO. 3
Oryza sativa Oryza sativa	Oryza sativa Petunia y hvhrida				Cicer arietinum			Oryza sativa	ഗ	Citrus unshiu	-			Chlamydomonas reinhardtii	Oryza sativa	Ribes nigrum	Picea abies	Triticum turgidum	Nicotiana tabacum			Nicotiana rustica	Solanum tuberosum	Glycine max	Brassica napus		Oryza sativa subsp. indica	Euphorbia esula	į	Nicotiana tabacum Orvza sativa		Phaseolus vulgaris
AP002817 AP001366	AP000559 X92205	X92204		348	AJ275311	350	ממיינים מ	DZ6538	AF010584	AB016809		354	075345	075346	AP001383	AJ007580	AJ132535	X80023	AJ299250	,	360	X11931	X93564	U25027	AF108123	361	AF072849	362 AF227980		363 D26015 AP002913		366 AF078082
BAB03447.1 BAA92400.1	BAA84803.1 CAA63102.2	CAA63101.1			CAB61745.1	ON OT ONS		BAA05539.1	AAB66889.1	BAA74736.1			AAB71743.1	AAB71744.1	BAA92520.1	CAA07568.1	CAC27140.1	CAA56325.1	CAC12820.1			CAA72681.1	CAA63777.1	AAA74441.1	AAD26119.1		AAC33765.1	SEQ ID NO. 3		SEQ ID NO. 3 BAA22813.1 BAB21205.1		SEQ ID NO. 3 AAD21872.1

.c. 1.1		233	ea ea ea ea ea ea subsp. napus
Triticum aestivum Lilium longiflorum Fritillaria agrestis Cicer arietinum Pisum sativum Lycopersicon esculentum Lycopersicon pennellii	Glycine max Cicer arietinum Canavalia lineata Pisum sativum Pisum sativum	Lens culinaris Lens culinaris Cicer arietinum Phaseolus vulgaris Zea mays Brassica oleracea Ipomoea trifida Brassica oleracea	Brassica tapa Brassica oleracea Brassica oleracea Brassica oleracea Brassica napus Brassica oleracea Brassica oleracea Brassica oleracea Brassica napus subsp. Brassica napus Brassica rapa Brassica rapa
AF107023 AB012694 AF031547 AJ006767 L34578 Z11842 AF253416 U01890	402 AF089851 AJ009825 AF172681 AB026253 L39931 x64201	A13 AF078082 A2082 AE078082 U82481 Y12531 U20948 X98520	ABOUGS OF YI 8259 YI 8259 YI 8260 YI 4286 U00443 M76647 YI 4285 ABO32473 AJ245479 M97667 D88193
AAD41006.1 BAAB7331.1 AAB86857.1 CAA07233.1 AAA50303.1 CAA77867.1 AAF64525.1 AAF64525.1 AAB03076.1			BAAL3676.1 CAB41878.1 CAB41879.1 CAA74662.1 AAA33000.1 AAA33000.1 CAB89179.1 AAA33008.1 BAAS1132.1 BAAS1132.1
Catharanthus roseus Glycine max Brassica rapa subsp. pekinensis Pisum sativum Glycine max Triticum aestivum Vicia sativa	Nepera racemosa Glycyrhiza echinata Persea americana Brassica napus Lotus japonicus	Tulipa gesneriana Tulipa gesneriana Tulipa gesneriana Mesembryanthemum crystallinum Apium graveolens Lycopersicon esculentum Pisum sativum Nicotiana tabacum	Lathyrus sativus Lens culinaris Lens culinaris Lathyrus sativus Nicotiana tabacum Pisum sativum Lens culinaris Pisum sativum Lycopersicon esculentum Pisum sativum Euphorbia esula Zea mays Triticum aestivum
379 L19074 AF022457 AY029178 249263 AF022459 AB036772 AF030260	109423 AB001379 M32885 AF214008 AF214007 AB025016	AF283708 AF283708 AF283707 AF053564 393 Y12599 U03391 AF352247 L29456	AF352249 AF352251 AF352253 AF352250 AB029614 AF352246 AF352248 AJ224933 X05636 AF222804 X57077
			AAK29452.1 AAK29454.1 AAK29456.1 AAK29453.1 BAAK29449.1 AAK2949.1 AAK29455.1 AAK29451.1 CAA12232.1 CAA12232.1 CAA29123.1 CAA40362.1 CAA40362.1

Arabis drummondii Zea mays Lactuca sativa Zea mays Arabis hirsuta Arabis glabra Trifolium repens Arabis blepharophylla Arabis drummondii Pennisetum glaucum	Arabis alpina Arabidopsis lyrata subsp. Arabis gemmifera Arabis gemmifera Vitis vinifera Phaseolus acutifolius Pinus banksiana Pinus banksiana Vitis vinifera Malus x domestica Arena sativa Pinus sylvestris Avena sativa Nicotiana tabacum Petroselinum crispum Avena sativa Pisum sativa	Avena sativa Lycopersicon esculentum Picea abies Mougeotia scalaris Mesotaenium caldariorum Adiantum capillus-veneris Adiantum capillus-veneris Oryza sativa Sorghum bicolor
AF110436 AE050457 D44449 X04049 AF110445 AF110439 X14826 AF110431 AF110437 AF110437	AF110428 AF110453 D63454 D63457 AF194174 Z23170 U48367 AF195866 Z48234 AF195866 Z48234 X14172 X96738 X03243 X66784 X75412 X03243	M18822 U32444 U60264 X95550 U31284 AB016231 AB016232 AB018442 AF141942 U56731
AAF23534.1 AAC34295.1 BAA07911.1 CAA27681.1 AAF23543.1 AAF23537.1 CAA32934.1 AAF23529.1 AAF23535.1 CAA34547.1	•	AAA76820.1 AAC49301.2 AAB03339.1 CAA64796.1 AAC49128.1 BAA33774.1 BAA33775.1 BAA33775.1 BAA54448.1 AAF66603.1
Brassica oleracea Brassica oleracea Nicotiana tabacum Brassica rapa Brassica rapa Oryza sativa Oryza sativa Oryza sativa Brassica napus	Brassica napus Nicotiana tabacum Petunia x hybrida Solanum tuberosum Arabis alpina Solanum tuberosum Arabis alpina Solanum tuberosum Solanum tuberosum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Vitis vinifera Arabis alpina Arabis fendleri Vitis vinifera Arabis parishii Arabis parishii Oryza sativa Arabis lignifera	Aubrieta deltoidea Brassica oleracea Zea mays Arabis alpina Arabis pauciflora Halimolobos perplexa var. Zea mays
218921 AB032474 AF088885 D38563 D38564 AB054061 AP001800 AP001800 AP001800 AY028699	AY007545 414 X81853 X54106 M25153 M25154 AF110429 X53242 M25152 X77233 M86724 AF194173 AF110438 U36586 AF110448 AF110447	AF110425 AF110434 M32984 AF110427 AF110451 AF110441 X04050 AF123535
CAA79355.1 BAA92837.1 AAD52097.1 BAA07576.1 BAA07577.2 BAB21001.1 BAA94516.1 BAA94517.1 AAA33915.1 BAA94529.2		AAF23523.1 AAF33434.1 AAF33525.1 AAF23555.1 AAF23559.1 AAF23539.1 Lemhiensis CAA27682.1

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Oryza sativa	responsible and and	hordeum vuigare				Oryza sativa	Oryza sativa	Hordeum vulgare	Hordeum vulgare	Oryza sativa	Oryza sativa			Nicotiana tabacum	Nicotiana tabacum	Lotus japonicus	Lotus japonicus	Zea mays	Lotus japonicus	Beta vulgaris	Volvox carteri	Lotus japonicus	Lotus japonicus	Beta vulgaris	Glycine max	Lotus japonicus	Triticum aestivum	Daucus carota	Pisum sativum	Oryza sativa	Lotus japonicus	Prunus armeniaca	Pisum sativum	Lotus japonicus	Pisum sativum	Nicotiana plumbaginifolia	Pisum sativum	Pisum sativum	Cichorium intybus x Cichorium		
AE044489	A1 2000 E	AEURST64	AETOU/66	AE237570	AF2384//	AE237567	AF164020	AF085167	AF085166	AP003338	AF238475		420	L16767	L16787	273960	273959	AF112244	273940	249190	L08131	273954	273941	249152	058853	273951	AF112964	AJ001367	D12544	AJ292320	273942	U82219	D12542	273943	X65650	X64941	249902	D12545	AJ296336		
AAC01746.1	AAE / 0010 . 1	AAD44029.1	AAD46416.1	AAF68400.1	AAF78021.1	AAF68397.1	AAD46916.1	AAD44032.1	AAD44031.1	BAB39437.1	AAF78019.1		SEQ ID NO.	AAA73563.1	AAA34109.1	CAA98188.1	CAA98187.1	AAD18006.1	CAA98168.1	CAA89049.1	AAA34254.1	CAA98182.1	CAA98169.1	CAA89021.1	AAB97114.1	CAA98179.1	AAD28731.1	CAA04701.1	BAA02112.1	CAC19792.1	CAA98170.1	AAB71504.1	BAA02110.1	CAA98171.1	CAA46600.1	CAA46112.1	CAA90082.1	BAA02113.1	CAC24477.1	endivia	
Marchantia paleacea var.				Selaginella martensii	Physcomitrella patens	Sorghum bicolor	Glycine max	Pisum sativum	Pisum sativum	Solanum tuberosum	Lathyrus sativus	Cucurbita pepo	H	• .	Armoracia rusticana			⊶	Adiantum capillus-veneris	Adiantum capillus-veneris	Nicotiana plumbaginifolia			Populus balsamifera subsp.	•	Ivcopersicon esculentum	Solanum tuberosum	Inconersicon esculentum	Orvza sativa subsp. indica	umifera				Oryza sativa	Orvza sativa	Orvza sativa	Orvza sativa	Orvza gariva	Triticum aestivum	Oryza sativa	
AB022917		056698	U72993	X61458	X75025	056729	L34842	X14077	M37217	584872	U84970	M15265	AJ001318		AB036762	AB036764	AB036763	AF182394	AB016168	AB016151	X14676	L10114	X14572	AF309806		A.TOO2281	551538	AF122901	x57563	AF309807			418	AF238474	AF164021	DF248493	AF077130	DE044260	A£044200 U51330	AE237568	
BAB39687.1	diptera	AAB67863.1	AAB19058.1	CAA43698.1	CAA52933.1	AAB41397.1	AAA33957.1	CAA32242_1	DAB33682.1	2.20001211 0.0001533	AAR47994.1	AAA33115.1	CAA04679.1	tremuloides	BA99408 1	BA99410.1	BAA99409.1	AAR41398.2	BAA31856.1	BAA31710.1	CAA74992.1	AAA34092.1	CAA74908.1	AAG25725.1	trichocarpa	CE ECHICA 1	1 7550575	AND50631 1	2.10000000 7.10000000	aac25726.1	trichocarna	54,550	SEO ID NO. 4		AAD46917.1	1 7 7 8 C 3 C 4 C	1.150013AA	ANCO2635 1	AAC49629.1	AAF68398.1	1.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

CAA98175.1	273947	Lotus japonicus	AAB53694.1	u59379	Brassica napus
			AAD49231.1	AF159386	Secale cereale
	421		BAB39913.1	AP002912	Oryza sativa
AAD04034.1	AF081794	Nicotiana tabacum	AAD56954.1	AF186240	
AAD20458.1	AF099969	Nicotiana tabacum	CAA55398.1	X78821	Chlamydomonas reinhardtii
			CAA44209.1	X62335	Chlamydomonas reinhardtii
	422		CAA56851.1	X80888	Chlamydomonas reinhardtii
BAA19928.1	AB003491	Oryza sativa	AAD45358.1	AF160870	
AAA33491.1	M76685	Zea mays	AAB52409.1	U76831	Brassica napus
AAB97526.1	AF042321	Camptotheca acuminata	CAA06736.1	AJ005841	Orvza sativa
AAB97087.1	AF042320	Camptotheca acuminata	CAA06735.1	AJ005840	Triticum aestivum
AAA33490.1	M76684		CAA53900.1	X76269	Pisum sativum
AAC25986.1	AF047024	Chlamydomonas reinhardtii	AAC49358.1	U35831	Pisum sativum
			CAA35826.1	X51462	Spinacia oleracea
	423		CAA35827.1	X51463	Spinacia oleracea
AAC04671.1	AE018174	Brassica napus			
CAA45098.1	X63537	Pisum sativum	SEQ ID NO.	425	
AAC49357.1	U35830	Pisum sativum	AAD16139.1	AF096299	Nicotiana tabacum
AAC19392.1	AF069314	Mesembryanthemum crystallinum	AAC37515.1	L44134	Cucumis sativus
CAA33082.1	X14959	Spinacia oleracea	AAF23898.1	P.F.193802	
BAB20886.1	AB053294	Oryza sativa	BAA82107.1	AB022693	bacum
AAC32111.1	AF051206	Picea mariana	BAA77383.1	AB020590	Nicotiana tabacum
AAB53695.1	059380	Brassica napus	AAD55974.1	AF121353	Petroselinum crispum
CAA05081.1	AJ001903	Triticum turgidum subsp. durum	CAA88326.1	248429	Avena fatua
CAA77847.1	211803	Nicotíana tabacum	AAC31956.1	AF080595	Pimpinella brachycarpa
BAA13524.1	D87984	Fagopyrum esculentum	AAC49527.1	048831	Petroselinum crispum
BAA04864.1	D21836	Oryza sativa	BAA86031.1	AB026890	Nicotiana tabacum
AAB51522.1	092541	Oryza sativa	AAD16138.1	AF096298	Nicotiana tabacum
BAA05546.1		Oryza sativa	AAC49529.1	U58540	Petroselinum crispum
AAF88067.1	AF286593		AAG35658.1	AF204925	Petroselinum crispum
CAA41415.1	X58527	Nicotiana tabacum	BAB16432.1	AB041520	Nicotiana tabacum
CAA94534.1	270677	Ricinus communis	CAA88331.1	248431	Avena fatua
AAD49232.1	AF159387		BAA77358.1	AB020023	Nicotiana tabacum
AAD49234.1	AF159389	Phalaris coerulescens	AAC49528.1	056834	Petroselinum crispum
AAD49233.1	AF159388	Phalaris coerulescens	AAG35659.1	AF204926	Petroselinum crispum
AAD49230.1	AF159385	Hordeum bulbosum	CAB66338.1	AJ279697	Betula pendula
BAA25681.1	AB010434	Brassica rapa	AAD27591.1	AF121354	Petroselinum crispum
CAA55399.1	X78822	Chlamydomonas reinhardtii	AAF61864.1	AF193771	Nicotiana tabacum
CAA56850.1	X80887	Chlamydomonas reinhardtii	AAF61863.1	AF193770	Nicotiana tabacum
AAG3577.1	AF273844	Brassica oleracea var.			
alboglabra			SEQ ID NO. 4	433	

		AJ286748	·	AJ132893		CAC28220.1 AJ286745 Sesbania rostrata		SEQ ID NO. 434	AAF13731.1 AF002248 Pisum sativum	CAA78932.1 217226 Pinus sylvestris	CAA78901.1 Z16409 Pinus sylvestris	CAA57877.1 X82497 Nicotiana tabacum	_	AAC67557.1 AF094775 Oryza sativa				X81962 Pisum sativum	X58516	X84308 Hordeum vulgare	AAB65793.1 AF010321 Oryza sativa		CAA41407.1 X58517 Pinus sylvestris		X71965		AAF44703.1 AF241525 Alonsoa meridionalis		AF110787 Volvox carter		AF094776	AF218305	X65119 Chlamydomonas	AF104633	AAD03733.1 AF104632 Chlamydomonas reinhardtii	AAA34186.1 J03558 Lycopersicon esculentum	AAG28464.1 AF195794 Chlamydomonas reinhardtii	CAA41404.1 X58514 Pinus sylvestris		X58515 Pinus
Zea mays	Zea mays	Nicotiana plumbaginifolia	Zostera marina	Oryza sativa	Lycopersicon esculentum	Solanum tuberosum	Nicotiana plumbaginifolia	Kosteletzkya virginica	Prunus persica	Vicia faba	Phaseolus vulgaris	Vicia faba	Mesembryanthemum crystallinum	Vicia faba	Nicotiana plumbaginifolia	Prunus persica	Nicotiana plumbaginifolia	Lycopersicon esculentum	Lycopersicon esculentum	Nicotiana plumbaginifolia	Solanum tuberosum	Lycopersicon esculentum	Nicotiana plumbaginifolia	Vicia faba	Oryza sativa	Medicago truncatula	Medicago truncatula	Nicotiana plumbaginifolia	Lilium longiflorum	Nicotiana plumbaginifolia	Dunaliella bioculata	Dunaliella acidophila	Cucumis sativus	Vicia faba	Nicotiana plumbaginifolia	Zea mays	Zea mays	Hordeum vulgare	•	Hordeum vulgare
X85805	009989	AF156691	D45189	D10207	072148	X76535	X66737	AF029256	AJ271438	AB022442	X85804	AJ310524	U84891	S79323	AF156679	AJ271439	M27888	AF275745	AF179442	M80489	X76536	M60166	M80490	AJ310523	D31843	AJ132892	AJ132891	AF156683	AX029190	M80491	X73901	U54690	AF289025	038965	M80492	008984	008985	AF308816		AJ295612
CAA59800.1	AAB60276.1	AAD46188.1	BAA08134.1	BAA01058.1	AAB17186.1	CAA54045.1	CAA47275.1	AAB84202.2	CAB69823.1	BAA37150.1	CAA59799.1	CAC29436.1	AAB41898.1	AAB35314.2	AAD46186.1	CAB69824.1	AAA34052.1	AAF98344.1	AAD55399.1	AAA34094.1	CAA54046.1	AAA34173.1	AAA34098.1	CAC29435.1	BAA06629.1	CAB85495.1	CAB85494.1	AAD46187.1	AAK31799.1	AAA34099.1	CAA52107.1	AAB49042.1	AAG01028.1	AAA81348.1	AAA34096.1	AAA20600.1	AAA20601.1	AAK32118.1		CAC10554.1

WO 2002/016655		PCT/US2001/026685
	238	sp. durum
Gossypium hirsutum Hordeum vulgare Hordeum vulgare Gossypium hirsutum Gossypium hirsutum Triticum aestivum Capsicum annuum Pyrus communis Hordeum vulgare Oryza sativa Zea mays Gossypium hirsutum	Gossyplum hirsutum Zea mays Malus x domestica Capsicum annuum Sorghum bicolor Sorghum bicolor Cicer arietinum Beta vulgaris Malus x domestica Spinacia oleracea Brassica napus Prunus dulcis Hordeum vulgare Hordeum vulgare Rordeum vulgare Prunus dulcis Oryza sativa Corylus avellana	Daucus carota Daucus carota Prunus avium Triticum turgidum subsp. Oryza sativa Pisum sativum Zea mays Oryza sativa Zea mays
AF195865 X68656 U18127 AF195864 AF195863 AF201853 AF201833 AF221503 AF109195 Z23271 U66105	S/81/3 J04176 J04176 AF221502 AF221502 AJ002958 X92746 AJ277164 M58635 AF101038 X96716 X68655 Z37114 U90342 U77295	M64746 AF221501 X63669 445 AF067401 AB048713 AF263457 AP001168 AF067400
AAF35186.1 CAA48623.1 AAR86694.1 AAF35185.1 AAF20395.1 AAF23459.1 AAF26451.1 AAF14232.1 CAA80809.1 AAB06443.1	AAB34 174.1 AAA33493.1 AAF26450.1 AAF23460.1 CAA50661.1 CAA63407.1 CAA63407.1 CAA63407.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1 CAA65477.1	
4 . 4 0	Solanum tuberosum Solanum tuberosum Oryza sativa 11 Oryza sativa 11 Oryza sativa Petunia x hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida Potunia x hybrida Oryza sativa Gossypium hirsutum Soryza sativa Oryza sativa	
AF241524 X63052 X56538 X12735 K02067 AJ131044 M29334 Y13865 AF279250 U23189 X55892	XUZ358 436 U52079 AP000391 AP001111 AP001111 AP001111 AP1060 X71060 X71059 AB027454 439 AF151214 U31766 AF1528333 AF017359	AF017358 AF017358 AF198168 X68654 Z66529 U63993 Z66528 AF331710 AF331710
AAF44702.1 CAA39883.1 CAA31232.1 AAA33651.1 CAA10284.1 AAA33396.1 CAA74179.1 AAF89207.1 AAA64414.1 AAA64415.1	CAAZ 6211.1 SEQ ID NO. AAD10836.1 BAA93352.1 BAA90508.1 BAA90507.1 CAA81057.1 CAA81057.1 CAA50377.1 CAA50377.1 CAA50377.1 AA629777.1 AAA74624.1 AAB70539.1	AAB70538.1 AAC00499.1 AAF71695.1 CAA48621.1 CAA91436.1 AAB05812.1 CAA91435.1 AAK01293.1 AAK01293.1

372 Vitis vinifera 237 Ipomoea purpurea			,	LO.	854 Gossypium hirsutum			278 Hordeum vulgare			134 Chloroplast Medicago sativ	480 Nicotiana tabacum	339 Nicotiana tabacum	165 Capsicum annuum	095 Cicer arietinum	684 Chlorella vulgaris		23	Vigna radiata		Twonersion	Aycoperators 700 mass				Pisum sativum	Lycopersicon	Lycopersico			796 Oryza sativa	466 Vigna radiata	248 Pisum sativum		8 Lycopersicon esculentum	276 Hordeum vulgare	775 Oryza sativa	3 Lycopersicon esculentum	8 Nicotiana tabacum	8 Lycopersicon esculentum
AE000372 AE028237	NB012116	•	460	AF13285	AF132854		462	AJ133278		464	AF332134	AB017480	AF117339	AJ012165	AJ006095	AB001684		475	AF139470	M32606	SOUCEM.	132500	02313	M21317	X58516	X81962	X14036	M20241	X71965	Z50801	AF058796	AF139466	AF002248	X82497	X15258	AE287276	AF094775	M17633	X64198	J03558
AAB81683.1 AAB86473.1	BAA36412.1			AAD29050.1	AAD29049.1			CAB56225.1		SEQ ID NO.	AAK15322.1	BAA33755.2	AAD17230.1	CAA09935.1	CAA06853.1	BAA57906.1		SEO ID NO.	AAD27882.2	AAA34146.1	1 57175444	AMAS4143.1	T'OT B BOWN	AAA33711.1	CAA41406.1	CAA57492.1	CAA32197.1	AAA34159.1	CAA50763.1	CAA90681.1	AAC14566.1	AAD27878.1	AAF13731.1	CAA57877.1	CAA33330.1	AAF90200.1	AAC67557.1	AAA34140.1	CAA45523.1	AAA34186.1
	Glycine max	Hordeum vulgare	Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	•		Oryza sativa	•		Petunia x hybrida	×				Nicotiana tabacum	v.	Victor mindo	יייים לייים לייים אינה אינה אינה אינה אינה אינה אינה אינה	Phaseolus Vulgaris	Solanum tuberosum	Brassica napus	Perilla frutescens	Phaseolus lunatus	Vitis labrusca x Vitis vinifera	Vitis vinifera	Ipomoea batatas	Vitis vinifera	Vitis vinifera	Vitis vinifera	Perilla frutescens	Vitis labrusca x Vitis vinifera	Vigna mungo	Vitis vinifera	vini	Vitis vinifera	Vitis vinifera	Vitis vinifera
452	020260	M31545	L39279	X65974	X65973	U03632	003633		458	AB023482		159	225802	X71060	X71059	AB031274	AB012114	DE190634	AE033758	ALCCIOAK	CTIZIOGN	AF116858	082367	AE287143	AB002818	AF101972	AB047090	AB047093	AB038248	AB047095	AB047099	AB047097	AB013596	AB047091	AB009370	AB047098	AB047094	AB047092	AB047096	AF000371
SEO TO NO 4		AAB59330.1	AAA81881.1	CAA46787.1	CAA46786.1	AAA18861.1	AAA18862.1			BAA78745.1		SEO ID NO. 4	CAA81057.1	CAA50377.1	Cap50376.1	BD B 3 4 8 4 1	BAA36410.1	1.01100000	1.05050449	L 11775440	BAA304II.I	AAD51778.1	AAB48444.1	AAF98390.1	BAA19659.1	AAD04166.1	BAB41017.1	BAB41020.1	BAA90787.1	BAB41022.1	BAB41026.1	BAB41024.1	BAA36421 1	BAR41018.1	BAA36972.1	BAB41025.1	BAB41021.1	BAB41019.1	BAB41023.1	AAB81682.1

														llinum				24	10																				
Brassica juncea Pisum saffuum	Medicado sativa	Medicago sativa	Oryza sativa	Sorghum bicolor	Triticum aestivum	Vicia faba	Chloris gayana	Zea mays	Zea mays	Sorghum bicolor	Sorghum bicolor	Zea mays	Zea mays	Mesembryanthemum crystallinum	Picea abies	Vanilla planifolia	Vanilla planifolia	Welwitschia mirabilis			Brassica júncea	Zea mays	Hordeum vulgare	Zea mays	Prunus persica	Tetraselmis sp. RG-15	Oryza sativa	Physcomitrella patens	Pinus sylvestris	Solanum tuberosum	Cicer arietinum	Lycopersicon esculentum	Solanum tuberosum	Oryza sativa	Oryza sativa	Solanum tuberosum	Medicago sativa	Solanum tuberosum	Lemna gibba
AJ223496 D64037	M83086	L39371	AF271995	X59925	AJ007705	AJ011302	AF268091	X15239	AB012228	X65137	X55664	X15238	X15642	X14588	AF159051	X87148	X87149	X91404		477	X95727	U23189	X63052	U23188	1,36064	AF017998	X13908	AB026686	X14506	U21111	AJ131044	M14443	U20983	X13909	D00641	U21113	AE072931	U21114	M29334
CAA11414.1 BAA10902.1	AAB46618.1	AAB41903.1	AAG00180.1	CAA42549.1	CAA07610.1	CAA09588.1	AAG42288.1	CAA33317.1	BAA28170.1	CAA46267.1	CAA39197.1	CAA33316.1	CAA33663.1	CAA32728.2	AAD45696.1	CAA60626.1	CAA60627.1	CAA62747.1		SEQ ID NO.	CAA65042.1	AAA64415.1	CAA44777.1	AAA64414.1	AAA50310.1	AAB70556.1	CAA32108.1	BAA77273.1	CAA32658.1	AAA80591.1	CAA10284.1	AAA34147.1	AAA80589.1	CAA32109.1	BAA00536.1	AAA80593.1	AAC25775.1	AAA80594.1	AAA33396.1
Pinus sylvestris Pisum sativum	Polystichum munitum		Pinus sylvestris	Pinus sylvestris	Alonsoa meridionalis	Sinapis alba	Sinapis alba	Hordeum vulgare			Amaranthus hypochondriacus	Flaveria trinervia	Gossypium hirsutum	Flaveria trinervia	Solanum tuberosum	Solanum tuberosum	Mesembryanthemum crystallinum	Flaveria pringlei	Flaveria trinervia	Glycine max	Flaveria pringlei	Nicotiana tabacum	Lycopersicon esculentum	Sesbania rostrata	Glycine max	Glycine max	Picea abies	Solanum tuberosum	Lycopersicon esculentum	Mesembryanthemum crystallinum	Lotus corniculatus	Saccharum sp.	Brassica napus	Flaveria trinervia	Flaveria australasica	Phaseolus vulgaris	Amaranthus hypochondriacus	Zea mays	Brassica juncea
X58517 X69215	M34396	X81808	X58515	X58514	AF241525	X15894	X16436	AF218305		476	L49175	X64143	AF008939	AF248080	X90982	x67053	X13660	248966	AF248079	D10717	X64144	X59016	AJ243416	AJ286750	D13998	AB008540	X79090	AJ011844	AJ243417	X14587	AF135371	M86661	D13987	0	225853	AF288382	268125	X61489	AJ223497
CAA41407.1	AAA68425.1	CAA57407.1	CAA41405.1	CAA41404.1	AAE44703.1	CAA33903.1	CAA34459.1	AAF23819.1		SEQ ID NO.	AAB18633.1	CAA45504.1	AAB80714.1	AAG17619.1	CAA62469.1	CAA47437.1	CAA31956.1	CAA88829.1	AAG17618.1	BAA01560.1	CAA45505.1	CAA41758.1	CAB65170.1	CAC28225.1	BAA03100.1	BAA23419.1	CAA55700.1	CAA09807.1	CAB65171.1	CAA32727.1	AAD31452.1	AAC33164.1	BAA03094.1	CAA43601.1	CAA81072.1	AAK28444.1	CAA92209.1	CAA43709.1	CAA11415.1

BAA03104.1	D14002	Lactuca sativa	BAA01394.1	D10524	Nicotiana tabacum
CAA47950.1	X67714	Pinus contorta	AAA33930.1	M84968	Silene vulgaris
AAA33124.1	M16057	Cucumis sativus	AAA33931.1	M84969	Silene vulgaris
•	AB012638	Nicotiana sylvestris	AAF61392.1	AF133894	Persea americana
BAA25396.1	AB012641	Nicotiana sylvestris	CAB38119.1	AJ010296	Zea mays
•	U73218	Triticum aestivum	CAB38118.1	AJ010295	Zea mays
AAA50172.1	001964	Glycine max	AAG34811.1	AF243376	Glycine max
	M23532	Physcomitrella patens	CAA09190.1	AJ010451	Alopecurus myosuroides
	X56538	m sativum	CAA09192.1	AJ010453	Alopecurus myosuroides
AAB61237.1	AF003128	Mesembryanthemum crystallinum	CAA09193.1	AJ010454	Alopecurus myosuroides
AAB61238.1	AF003129	Mesembryanthemum crystallinum	AAG34814.1	AF243379	Glycine max
AAA18529.1	L07119	Chloroplast Gossypium hirsutum	CAA09191.1	AJ010452	Alopecurus myosuroides
CAA99993.1	275663	Apium graveolens	AAG34812.1	AF243377	Glycine max
AAB61236.1	AF003127	Mesembryanthemum crystallinum	CAA39487.1	X56012	Triticum aestivum
CAA39376.1	X55892		AAD56395.1	AF184059	Triticum aestivum
CAA32657.1	X14505	Pinus sylvestris	CAA68993.1	X07721	Petunia x hybrida
AAA80592.1	U21112	Solanum tuberosum	AAA33469.1	M16902	Zea mays
BAA24493.1	AB006081	Fagus crenata	AAA33470.1	M16901	Zea mays
CAA57408.1	X81809	Picea abies	AAA20585.1	U12679	Zea mays
BAA25389.1	AB012637		CAA56047.1	X79515	Zea mays
BAA25391.1	AB012637	Nicotiana sylvestris	CAA39480.1	X56004	Triticum aestivum
AAC78690.1	S73603	Pinus thunbergii	AAC64007.1	AF062403	Oryza sativa
CAA32900.1	X14794	Zea mays	AAG34823.1	AF244680	Zea mays
		1	AAG34817.1	AF244674	Zea mays
SEO ID NO.	479		CAA05354.1	AJ002380	Oryza sativa
	AF130426	Lycopersicon esculentum	AAG34820.1	AF244677	Zea mays
AAF72556.1	AF130425	persicon	AAG34821.1	AF244678	Zea mays
AAD44161.1	AF130423		CAB66333.1	AJ279691	Betula pendula
BAA83338.1	AB027528		AAG34818.1	AF244675	Zea mays
AAF72555.1	AF130424	Lycopersicon esculentum	AAG34816.1	AF244673	Zea mays
CAA04247.1	AJ000695	Lycopersicon esculentum	AAG34822.1	AE244679	Zea mays
CAA04246.1	AJ000694	eotia sca	CAA05355.1	AJ002381	Oryza sativa
SEO TD NO.	480		SEQ ID NO.	482	
	AF133302	Brassica rapa subsp. pekinensis	BAA31452.1	AB010416	Raphanus sativus
AAG40130.1	AF203879		AAB04557.1	U62778	Gossypium hirsutum
			CAA49854.1	X70417	Antirrhinum majus
SEO ID NO.	481		AAK26770.1	AF326503	Zea mays
	X78203	Hyoscyamus muticus	AAF90121.1	AF254799	Hordeum vulgare
AAB65163.1	AF002692	Solanum commersonii	AAK26768.1	AF326501	Zea mays
CAA96431.1	271749	Nicotiana plumbaginifolia	AAK26769.1	AF326502	Zea mays

001301 1 AP160130 CCCC, million his continu	AF271358 Oryza sativa	AF271356 Oryza	AJ133000 Crater		Oryza sativa	BAA19466.1 AB001919 Oryza sativa	CAB06620.1 284822 Nicotiana tabacum	AAG48162.1 AF154425 Lycopersicon esculentum	AAB51392.1 U92656 Vigna unguiculata	AAD17208.1 AF113918 Brassica oleracea var. cap	oleracea	AAG45486.1 AY013253 Lycopersicon esculentum	BAA11135.1 D73410 Zea mays	AAB70463.1 U96438 Pimpinella brachycarpa		AAC79125.1 U85482 Brassica oleracea var. capitata	AAD17209.1 AF113919 Brassica oleracea var. capitata		iva		_	AAG45485.1 AY013252 Lycopersicon esculentum	AAF17557.1 AF201661 Lycopersicon esculentum	AAF05818.1 AF195614 Nicotiana tabacum	AAG50297.1 AY013254 Lycopersicon esculentum		489		AAA86365.1 U21743 Brassica napus	BAB17848.1 AB015593 Oryza sativa			AB010876	Y15962	D45425	AF310017	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
frition postinim		Triticum aestivum	Brassica oleracea var. botrytis	Hordeum vulgare	Pyrus communis	Oryza sativa	Zea mays	Zea mays	Mesembryanthemum crystallinum	Tulipa gesneriana	Medicago sativa			Glycine max	Zea mays	Oryza sativa	Lycopersicon esculentum	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Spinacia oleracea	Oryza sativa	Petunia x hybrida	Oryza sativa	Glycine max	Euphorbia esula	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Spinacia oleracea	Oryza sativa		Pisum sativum		
	_				AB048248		AF037061	AF326500	U43291	X95650	AF020793			AF034572	AJ293343	AB026558	X14339	U92540	AB026559	AB032061	AB026561	X96974	AF022735	AE088914	D37886	AF255338	AF227625	AB023482	AP002069	AP002069	AB026560	D78173	AB026562		AF029242		

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Beta vulgaris Oryza sativa	Zea mays	Zea mays		Mitochondrion Pisum sativu	Nicotiana tabacum	Physcomitrella patens	Lotus japonicus	Medicago sativa	Gossypium hirsutum	Picea mariana	Gossypium hirsutum		Physcomitrella patens	Oryza sativa	Zea mays	Tradescantia virginiana	Oryza sativa	Oryza sativa	Oryza sativa	Zea mays	Erysimum cheiri	Volvox carteri	Daucus carota	Lotus japonicus	Pisum sativum	Pisum sativum	Pisum sativum	Lotus japonicus	Lotus japonicus	Lycopersicon esculentum	Lotus japonicus	Beta vulgaris	Brassica rapa	Volvox carteri			Brassica oleracea	Nicotiana tabacum	Oryza sativa
Z49191 AF250327	AF126053	AF126055	AF042330	L19093	AJ222545	AF233446	Z73962	AJ251210	879308	AF051223	AF165925	879309	AF233447	AB029510	AF126052	AF239751	AP001859	AB029508	AB029509	AF126054	AF161018	L08128	AJ001367	273944	Z49901	249902	Z49900	273948	273947	X69980	273946	249152	U38471	1.08130		492	X63558	293769	031773
CAA89050.1		AAD34358.1	AAB97458.1	AAA96980.1	CAA10815.2	AAF43429.1	CAA98190.1	CAB62075.1	AAB35093.1	AAC32124.1	AAD47828.1	AAB35094.1	AAE43430.1	BAA84494.1	AAD34355.1	AAF43923.1	BAA94775.1	BAA84492.1	BAA84493.1	AAD34357.1	AAD45722.1	AAA34251.1	CAA04701.1	CAA98172.1	CAA90081.1	CAA90082.1	CAA90080.1	CAA98176.1	CAA98175.1	CAA49600.1	CAA98174.1	CAA89021.1	AAB17726.1	AAA34253.1		SEQ ID NO.	CAA45119.1	CAB07804.1	AAA74625.1
Beta vulgaris Dienm eativnm	Orvza sativa			Oryza sativa	Barbula unquiculata	Orvza sativa	Atriblex lentiformis	Mesembryanthemum crystallinum	Nicotiana plumbaginifolia	Pisum sativum	Pisum sativum	Pisum sativum	Hordeum vulgare	Pinus radiata	Triticum aestivum		Solanum tuberosum		9		Orvza sativa	Pinus caribaea	Hordeum vulgare	_				Hevea brasiliensis	Hevea brasiliensis		 		Physcomitrella patens	Physcomitrella patens	Physcomitrella patens	Orvza sativa subsp. japonica	Oryza sativa subsp. japonica	japonicus	
AF310016	AU222272	AP003020	AP003018	AE032974	AB028454	AF072694	AB024338	M93041	AF132671	AJ250832	AJ250834	AJ250833	AF250933	AF049065	A.T237943	AF032972	AF067731	X93171	17237942	AB012138	AF032971	AF039201	101963	M63223	M21962	100	490	AJ012583	M36986	AJ003196		191	AF146341	AF146340	AF115476	AF329814	AF218381	273961	AB024996
AAG36665.1						AAC25777.1	BAA78563.1			CAB65369.1	CAB65371.1	CAR65370.1	1 500000 T	1.621.0044	ר פאקאפער	ר בהמאסחקיי	1.0040304 a	1.01501041	CAR63639.1	1.00000000	1.05000744	1.200144	1.67.5000444	1.0202027	•	7.0071000	SEC ID NO.		AAA33357.1	1 82050447		ON OT CRA	. ,	AAD44768.1	AAD26198.1	AAK27450.1	AAF28764.1	CAA98189.1	BAA76424.1

CAB07803.1	293768	Nicotiana tabacum	BAA92337.1	AB038790	Vicia faba
CAA05491.1	AJ002485	Medicago sativa	BAA92336.1	AB038789	Vicia faba
BAA92244.1	AB038648	Vicia faba		(
CAA07470.1	AJ007332	Catharanthus roseus		493	
CAA05492.1	AJ002486	Medicago sativa	AAD51109.1	AF176040	
CAA05494.1	AJ002488	Medicago sativa	CAA51821.1	X73419	Lycopersicon esculentum
AAA33545.1	M60215	Zea mays	AAA64427.1	1,29077	Pisum sativum
CAA82263.1	228627	Acetabularia cliftonii	AAA34125.1	L23762	Lycopersicon esculentum
CAA82264.1	228632	Acetabularia cliftonii	AAB88617.1	AF034946	Zea mays
	X80788	Medicaqo sativa subsp. x varia	AAB02168.1	015971	Oryza sativa
	AF156101	Chlamydomonas reinhardtii	AAA86089.1	017250	Brassica oleracea
	AJ002487	Medicago sativa	BAA21006.1	D17786	Oryza sativa
	293770	Nicotiana tabacum	AAD42941.1	AF091621	Catharanthus roseus
	248221	Phaseolus vulgaris	BAB40310.1	AB026055	Nicotiana tabacum
CAA40686.1	X57438		BAB40311.1	AB026056	Nicotiana tabacum
	AF159061		AAA34310.1	M62720	Triticum aestivum
	AJ007496	lana tab	AAF73016.1	AF262934	Avicennia marina
	AF134552		CAA58111.1	X82938	Lycopersicon esculentum
	AB039918	faba	CAA06493.1	AJ005348	Cicer arietinum
	X70399	Medicado sativa	BAA90392.1	AP001081	Oryza sativa 50
AAD48068.1	AF173881		AAC12662.1	AF032468	Zea mays
CAA81395.1	226654	ularia	CAA05772.1	AJ002959	Zea mays
CAB07807.1	293772	Nicotiana tabacum	AAF22280.1	AF165420	Mesembryanthemum crystallinum
CAA40687.1	X57439	- 5	AAB63513.1	AF008910	Prunus armeniaca
CAA07471.1	AJ007333	Catharanthus roseus	AAF03236.1	AF180143	Glycine max
•	AB039917	Victa faba	AAA34309.1	M28059	Triticum aestivum
BAA92697.1	AB039916	Vicia faba	CAA10494.1	AJ131733	Pseudotsuga menziesii
AAF86353.1	AF283668	Oryza sativa subsp. indica	AAC32141.1	AF051240	Picea mariana
CAA81126.1	226041	. Helianthus annuus		,	
AAC72838.1	AE097182	Oryza sativa		495	
CAC11129.1	AJ298829	Fagus sylvatica	BAA05965.1	D28777	Citrullus lanatus
AAA91806.1	049113		BAB20861.1	AB029511	Solanum tuberosum
AAD09953.1	AF107464		AAC25635.1	AE044172	Solanum tuberosum
CAA87385.1	247076	Malus x domestica	AAD23909.1	AF073697	Oryza sativa
CAR07806.1	293771	ana	AAD23907.1	AF073695	Oryza sativa
CAC11128.1	AJ298828	Fagus sylvatica	CAA59798.1	X85803	Zea mays
CAA87387.1	247078	Malus x domestica	BAB20862.1	AB029512	Solanum tuberosum
BAA92333.1	AB038786	Vicia faba	AAC25636.1	AF044173	Solanum tuberosum
CAA87386.1	247077	Malus x domestica	BAA03542.1	D14722	Spinacía oleracea
BAA92338.1	AB038791	Vicia faba	CAA47329.1	X66860	Spinacia oleracea
BAA92334.1	AB038787	Vicia faba	CAC12819.1	AJ299249	Nicotiana tabacum

																			24	15																				
Zea mays	Oryza sativa	Zea mays	Oryza sativa			Catharanthus roseus	Lemna minor	Allium cepa	Enteromorpha intestinalis			Brassica juncea	Brassica juncea	Brassica juncea	Dianthus caryophyllus		Nicotiana sylvestris	Pisum sativum	Datura stramonium	Glycine max	Oryza sativa	Dianthus caryophyllus	Nicotiana tabacum	Nicotiana tabacum	Theobroma cacao	Vitis vinifera	Lycopersicon esculentum	Arabidopsis arenosa	Capsella bursa-pastoris	Arabis drummondii	Barbarea vulgaris	Nasturtium officinale	Thellungiella salsuginea	Thlaspi arvense	Stanleya pinnata	Sisymbrium altissimum	Aethionema grandiflora	Brassica oleracea	Arabidopsis arenosa	Brassica nigra
AF244673	AJ002380	AF244681	AJ002381		498	U63784	AJ249831	AF212155	AF069951		499	AE077547	AF220097	AF220098	AF002017	AF127241	AB012873	237540	AJ251898	U35367	AP000559	U63832	AF127240	AF127239	AF045666	X96791	L16582	AF045685	AE045684	AF045680	AE045681	AF045690	AF045689	AF045688	AF045687	AF045686	AF045665	AF045683	AF045674	AF045682
AAG34816.1	CAA05354.1	AAG34824.1	CAA05355.1			AAB05871.2	CAB65911.1	AAF18999.1	AAC26855.1		SEQ ID NO.	AAC62017.1	AAF26434.1	AAF26435.1	AAB60880.1	AAF42972.1	BAA25685.1	CAA85773.1	CAB64599.1	AAD09204.1	BAA84799.1	AAB67887.1	AAF42971.1	AAE42970.1	AAC68511.1	CAA65585.1	AAA61347.1	AAC68530.1	AAC66529.1	AAC68525.1	AAC68526.1	AAC68535.1	AAC68534.1	AAC68533.1	AAC68532.1	AAC68531.1	AAC68510.1	AAC68528.1	AAC68519.1	AAC68527.1
Allium tuberosum	Solanum tuberosum	Cicer arietinum	Oryza sativa	Spinacia oleracea	Oryza sativa	Oryza sativa	Pyrus pyrifolia	:		Glycine max	Glycine max	Petunia x hybrida	Zea mays	Alopecurus myosuroides	Alopecurus myosuroides	Alopecurus myosuroides	Zea mays	Alopecurus myosuroides	Glycine max	Hyoscvamus muticus	Zea mays	Silene vulgaris	Zea mays	Silene vulgaris	Solanum commersonii			Oryza sativa	Nicotiana plumbaginifolia	Zea mays	Zea mays	Triticum aestivum		Zea mays	Triticum aestivum	Zea mavs	Triticum aestivum	ㅌ	Zea mays	Zea mays
AB040503	AB029513	AJ006024	AL442113	D37963	AF073696	AE073698	AF195239		497	AF243377	AE243379	X07721	AJ010296	AJ010451	AJ010453	AJ010452	AJ010295	AJ010454	AF243376	X78203	012679	M84968	X79515	M84969	AF002692	D10524	AF244680	AF062403	271749	M16901	M16902	X56012	AF244674	AF244679	AF184059	AF244677	X56004	AF133894	AF244678	AF244675
BAA93051.1	BAB20863.1	CAA06819.1	CAC09469.1	BAA07177.1	AAD23908.1	AAD23910.1	AAF78529.1		SEC TO NO. 4		AAG34814.1	CAA68993.1	CAB38119.1	CAA09190.1	CAA09192.1	CAA09191.1	CAB38118.1	CAA09193.1	AAG34811.1	CAA55039.1	AAA20585.1	AAA33930.1	CAA56047.1	AAA33931.1	AAB65163.1	BAA01394.1	AAG34823.1	AAC64007.1	CAA96431.1	AAA33470.1	AAA33469.1	CAA39487.1	AAG34817.1	AAG34822.1	AAD56395.1	AAG34820.1	CAA39480.1	AAF61392.1	AAG34821.1	AAG34818.1

AAC68523.1 AAC68514.1	AE045678 AE045669	Thellungiella salsuginea Arabis drummondii	AAF75791.1 AAF40306.1	AF271892 AF156667	Pisum sativum Vigna radiata
AAC68524.1	AF045679	Nasturtium officinale	CAA68193.1	X99937	Spinacia oleracea
AAC68522.1	AE045677	Thlaspi arvense	BAA95704.1	AB042643	Oryza sativa
AAC68513.1	AF045668	Polanisia dodecandra	BAA95705.1	AB042644	Oryza sativa
AAC68518.1	AE045673	Capsella bursa-pastoris	AAD20980.1	AF079782	Zea mays
AAC68515.1	AF045670	Barbarea vulgaris			
AAC68521.1	AF045676	Stanleya pinnata	SEQ ID NO.	532	
AAC68520.1	AF045675	Sisymbrium altissimum	BAA95893.1	AP002071	Oryza sativa
AAC68517.1	AF045672	Brassica oleracea	AAB09771.1	067422	Zea mays
AAC68516.1	AF045671	Brassica nigra	AAG25966.1	AF302082	Nicotiana tabacum
AAC68512.1	AF045667	Carica papaya	BAA78764.1	AB023482	Oryza sativa
CAA40137.1	X56802	Avena sativa	AAK21965.1	AY028699	Brassica napus
AAD24801.1	AF132498	Brassica napus	AAF91323.1	AF244889	Glycine max
BAA21617.1	AB005880	Nicotiana tabacum	AAF91324.1	AE244890	Glycine max
AAB82607.1	AF026809	Ipomoea nil	CAB51834.1	69000	Oryza sativa
	,		CAC20842.1	AJ250467	Pinus sylvestris
	501		BAA06538.1	D31737	Nicotiana tabacum
CAA52201.1	X74072	Lycopersicon esculentum	AAG00510.1	AF285172	Phaseolus vulgaris
			AAC27894.1	AF023164	Zea mays
	513		AAF91322.1	AF244888	Glycine max
AAB36543.1	U77935	Phaseolus vulgaris	AAG16628.1	AY007545	Brassica napus
			AAF59906.1	AF197947	Glycine max
	514		AAE43496.1	AF131222	Lophopyrum elongatum
CAA32121.1	X13934	Lycopersicon esculentum	BAA84787.1	AP000559	Oryza sativa
CAA90564.1	250185	Populus nigra	BAA83373.1	AP000391	Oryza sativa
CAA28398.1	X04693	Spinacia oleracea	AAK11674.1	AE339747	Lophopyrum elongatum
CAA90565.1	250186	Populus nigra	AAC27895.1	AF023165	Zea mays
AAB86855.1	AF031545	Fritillaria agrestis	BAA94509.1	AB041503	Populus nigra
AAC78108.1	AF093636	ଣ	BAA94510.1	AB041504	Populus nigra
AAB63590.1	AF009412	Oryza sativa	AAB61708.1	093048	Daucus carota
CAA82201.1	228347	Hordeum vulgare	AAC36318.1	AF053127	Malus x domestica
CAA68696.1	X00704	Hordeum vulgare	AAF76313.1	AF220603	Lycopersicon esculentum
	AB026687	Physcomitrella patens	AAB47421.1	059316	Lycopersicon esculentum
AAA33089.1	L07282	Chlamydomonas reinhardtii	AAK11569.1	AF318493	Lycopersicon hirsutum
AAA33078.1	J05524	Chlamydomonas reinhardtii	AAF59905.1	AF197946	Glycine max
AAD03610.1	AF114235	Scenedesmus obliquus			•
BAA84778.1	AB017810	Pediastrum boryanum	SEQ ID NO.	538	
			AAD39440.1	AF132002	Petunia x hybrida
	521		AAD39439.1	AF132001	Petunia x hybrida
BAA03763.1	D16247	Nicotiana sylvestris	AAG32659.1	AF253971	Picea abies

Triticum aestivum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Chlamydomonas reinhardtii Zea mays Volvox carteri Volvox carteri	Zea mays Oryza sativa Lithospermum erythrorhizon Gossypium hirsutum Striga asiatica	Solanum tuberosum Striga asiatica Picea rubens Phalaenopsis sp. 'True Lady'Setaria italica Malva pusilla Nicotiana tabacum Vigna radiata Mimosa pudica	Solanum tuberosum Brassica napus Phalaenopsis sp. 'True Lady' Solanum tuberosum Pisum sativum Anemia phyllitidis Avena nuda
M12277 U16825 U16725 U16724 X84376 X06964 X06963	550 AF135014 AP001129 AB026124 551 AF059484 U68461	X55751 U68462 AF172094 AF246714 AF288226 AF112538 X63603 AF143208 AB032361	X55749 AF111812 AF246715 X55752 U81047 U81046 U76190 X90378 X67666 X15865 AF282624 X68649 AF091809
AAA34292.1 AAA98449.1 AAA98445.1 AAA59110.1 CAA30036.1 CAA30034.1 CAA30034.1	SEQ ID NO. AAD46491.1 BAA90623.1 BAA77024.1 SEQ ID NO. AAC31886.1 AAC49651.1	CAA39280.1 AAC49652.1 AAF71264.1 AAF71264.1 AAC10041.1 AAC45149.1 AAF31643.1 BAA89214.1	CAA39278.1 AAD03741.1 AAF71265.1 CAA39281.1 AAB38512.1 AAB18642.1 AAB18641.1 CAA47899.1 CAA33874.1 AAF82805.1 CAA48609.1 AAF40438.1
Picea ables Hyacinthus orientalis Nicotiana tabacum Oryza sativa Oryza sativa Prunus armeniaca Mesembryanthemum crystallinum Oryza sativa	Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Oryza sativa	Pisum sativum Pisum sativum Oryza sativa Oryza sativa	Triticum aestivum Sesbania rostrata Pisum sativum Zea mays Zea mays Zea mays Zea mays Ilaveria trinervia Oryza sativa Solanum melongena Sesbania rostrata Lycopersicon esculentum Lycopersicon esculentum Capsicum annuum Lolium temulentum
AF253970 AF134116 AJ299252 AB037183 AB036883 AF071893 AF245119 AB023482	AF211527 AF211531 AF211530 AF211530 539 D63331 D83078 AB027054	541 AJO11589 AF030516 AC084218 542 AF140490	545 X00043 Z79638 U10042 M13377 M13370 M36659 Y18575 AC073166 AB018245 Z79637 X69179 AF038387 X79715
AAG32658.1 AAD22495.3 CAC12822.1 BAB03248.1 BAB16083.1 AAC24587.1 AAF63205.1 BAA78738.1			SEQ ID NO. CAA24924.1 CAB01914.1 AAA33476.1 AAA33476.1 AAA33476.1 AAA33474.1 CAC34411.1 AAG46106.1 BAA85120.1 CAB01913.1 CAA48924.1 CAA48923.1 AAB94924.1

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Oryza sativa	Nicotiana tabacum	Hordeum vulgare	Oryza sativa	Solanum tuberosum	Glycine max	Lycopersicon esculentum			Hordeum vulgare	Glycine max	Oryza sativa	Oryza sativa	Mesembryanthemum crystalli	Nicotiana tabacum	Nicotiana tabacum	Spinacia oleracea	Hordeum vulgare	Triticum aestivum			Dianthus caryophyllus	Fagus sylvatica	Nicotiana tabacum		Prunus dulcis	Hordeum vulgare	Lycopersicon esculentum		Nepenthes alata	Brassica napus	Lotus japonicus	Cucumis sativus	Glycine max	Glycine max	Glycine max	Prunus dulcis			Vigna radiata
AP002482	D26602	X82548	AF062479	X95997	AF128443	AF203480	AF203481	X65606	AJ007990	AF203479	AB011967	U55768	AF090835	AF145593	070923	Z30332	X65604	AB011670		554	AF261654	AJ298994	AF247568	555	AF213936	AE023472	AF016713	AF140606	AF080545	AJ278966	AF000392	269370	AB052788	AB052785	AB052784	AF154930		556	AB004932
BAA96628.1	BAA05649.1	CAA57898.1	AAC99329.1	CAA65244.1	AAD23582.1	AAF19402.1	AAF19403.1	CAA46556.1	CAA07813.1	AAF19401.1	BAA83688.1	AAB05457.1	AAD17800.1	AAD28791.1	AAD52098.1	CAA82993.1	CAA46554.1	BAA34675.1			AAF69017.1	CAC09582.1	AAG00419.1	SEO ID NO.		AAC32034.1	AAD01600.1	AAF07875.1	AAD16016.1	CAC07206.1	AAB69642.1	CAA93316.1	BAB19760.1	BAB19757.1	BAB19756.1	AAD42860.1			BAA20848.1
Solanum tuberosum	Sorghum bicolor	Oryza sativa	Coleochaete scutata	Pisum sativum	Pisum sativum	Oryza sativa	Anemia phyllitidis	Brassica oleracea	Glycine max	Mesostigma viride	Magnolia denudata	Chlamydomonas reinhardtii	Chlamydomonas reinhardtíi	Volvox carteri	Scherffelia dubia	Zea mays	Anemia phyllitidis	Oryza sativa	Glycine max	Nannochloris bacillaris	Selaginella apoda	Selaginella apoda	Solanum tuberosum		Nicotiana tabacum	Lycopersicon esculentum	Zea mays	Nicotiana tabacum	Nicotiana tabacum	•~	Nicotiana tabacum	Nicotiana tabacum	Brassica napus	_	Nicotiana tabacum	Oryza sativa	Brassica napus		Cucumis sativus
X55750	X19318	X16280	AF061019	U81049	U76193	X15864	AF091810	AF044573	AF049106	AF061020	AF281323	D50839	D50838	M33963	AF061018	J01238	AF091808	X15862	J01297	AB013098	AF090969	AF090968	X55746	553	AF165186	AJ000728	U83625	AB055514	AJ302651	AF216314	D31964	AF325168	AJ009609	AJ009608	D26601	AF172282	AJ010091	AJ010093	Y10036
CAA39279.1	CAA55923.1	CAA34356.1	AAC16054.1	AAB38514.1	AAB18644.1	CAA33873.1	AAC64128.1	AAD02328.1	AAC05272.1	AAC16055.1	AAF87302.1	BAA09450.1	BAA09449.1			AAA33433.1	AAC64126.1	CAA33871.1	AAA33940.1	•	AAD48335.1	AAD48334.1	CAA39276.1	SEQ ID NO.	AAF67262.1	CAA04261.2	AAC83393.1	BAB32405.1	CAC24705.1	AAG40578.1	BAA06731.1	AAG53979.1	CAA08758.1	CAA08757.1	BAA05648.1	AAF34436.1	CAA08995.1	CAA08997.1	CAA71142.1

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Oryza sativa Daucus carota Daucus carota Daucus carota Daucus carota Daucus carota Daucus carota		Lotus japonicus Glycine max Lupinus angustifolius Lotus corniculatus Chloroplast Glycine max Panicum milaceum Medicago sativa Canavalia lineata Panicum miliaceum Plastid Canavalia lineata Panicum miliaceum Panicum miliaceum	Oryza sativa Oryza sativa Oryza sativa Lolium perenne Lithospermum erythrorhizon Lithospermum erythrorhizon Glycine max Rubus idaeus
561 X96681 D26573 D26576 D26578 D26575 D26574 S63 M92660 L23875	M92094 L25334 X61577 AF034210 AF034210 D14673 X63429	X59184 L09702 X59761 AF029898 S60967 D45076 L25335 U89494 X63428 AJ001360 X63428	140379 D67043 D67042 564 AF052221 D49367 X69955 AF239685
SEQ ID NO. CAA65456.2 BAA05622.1 BAA05625.1 BAA05624.1 BAA05624.1 BAA05623.1 SEQ ID NO. AAA33134.1	AAA33408.1 AAB46610.1 CAA43779.1 AAC50015.1 AAC50014.1 BAA03504.1 CAA45023.1	CAA63894.1 AAA33942.1 CAA42430.1 AAC12674.1 AAB26677.2 BAA08106.1 AAB68396.1 CAA6697.1 CAA45022.1 CAA45022.1	AAA38003.1 BAA23815.1 BAA23814.1 SEQ ID NO. AAF37732.1 BAA08366.2 BAA08366.2 BAA08365.1 CAC36095.1
Pisum sativum Pisum sativum Vigna radiata Glycine max Glycine max Vigna radiata Pisum sativum Pisum sativum Glycine max	Brassica napus Helianthus annuus Ricinus communis Borago officinalis Borago officinalis Triticum aestivum	Ceratodon purpureus Ceratodon purpureus Physcomitrella patens Physcomitrella patens Oryza sativa subsp. japonica Gossypium hirsutum Lycopersicon esculentum Hordeum vulgare Brassica napus	Prunus dulcis Oryza sativa Cucumis sativus Lotus japonicus Glycine max Glycine max Glycine max Prunus dulcis
X68215 X68216 AB004933 J03919 J03920 AB004931 X68218 X68217 AF169830	AJ224160 X87143 AF005096 AF133728 AF007561 U79010 AF031194	AJ250/34 AJ22091 AJ222981 AJ222980 AF030052 AF030052 AF150630 S60 AF016713 AF016713 AF03472	AF213936 AF140606 Z69370 AF000392 AB052785 AB052784 AB052788 AF154930
			AAF20002.1 AAF07875.1 CAA93316.1 AAB69642.1 BAB19757.1 BAB19756.1 BAB19760.1 AAD16016.1

AAE91309.1 AAB18638.1	AF239686 U50846	Rubus idaeus Nicotiana tabacum	AAE74000.2	U23787 AF144507	Sorghum bicolor Pseudotsuga menziesii
BAA07828.1	D43773		AAF74021.2	AF144528	Pseudolarix amabilis
AAC39366.1	AE008184	Populus x generosa			
AAC24504.1	AF041050	Populus tremuloides		565	
AAG43823.1	AF212317	Capsicum annuum	AAC32149.1	AF051249	Picea mariana
AAC24503.1	AF041049	Populus tremuloides	AAF43837.1	AF166114	Chloroplast Mesostigma vir
AAB18637.1	U50845	Nicotiana tabacum	AAC72192.1	AF069908	Zea mays
AAA33842.1	M62755	Solanum tuberosum	AAC72193.1	AF069909	Zea mays
AAD40664.1	AF150686	Solanum tuberosum	AAC72194.1	AF069910	Zea mays
AAE37733.1	AF05222	Lolium perenne	AAB01223.1	U56697	Pisum sativum
AAF37734.1	AF05223	Lolium perenne	AAD22077.1	AF124755	Pinus banksiana
AAF91310.1	AF239687	Rubus idaeus	AAD38941.1	AF143812	Lycopersicon esculentum
AAC39365.1	AF008183	Populus x generosa	AAD56390.2	AF182286	Artemisia annua
CAA31696.1	X13324	Petroselinum crispum			
CAA31697.1	X13325	Petroselinum crispum	SEQ ID NO.	566	
CAA36850.1	X52623	Oryza sativa	BAA02018.1	D11465	Spinacia oleracea
AAB42382.1	U39404	Pinus taeda	CAA86071.1	237990	Pisum sativum
AAB42383.1	U39405	Pinus taeda	AAF91407.1	AF271362	Lolium perenne
AAA92669.1	012013	Pinus taeda	AAC25999.1	AF072289	Mesembryanthemum crystallam
AAA92668.1	U12012	Pinus taeda	AAF65509.1	AF108881	Capsicum annuum O
AAD40665.1	AF150687	Solanum tuberosum	AAB67996.1	U72142	Helianthus annuus
AAF73997.2	AF144504	Picea smithiana	BAA01510.1	D10659	Spinacia oleracea
•	AF144505	Cathaya argyrophylla	CAA50511.1	X71388	Pisum sativum
AAE73995.2	AF144502	Pinus armandii	BAA03798.1	D16292	Oryza sativa
•	AE144501	Pinus armandii	AAA19005.1	U10283	Flaveria bidentis
AAE73996.2	AF144503	Pinus armandii	AAB40609.1	055019	Saccharum officinarum
CAA49575.1	X69954	Glycine max	AAA19004.1	010282	Flaveria bidentis
AAF74019.2	AF144526	Tsuga canadensis	AAA93030.1	U50150	Glycine max
•	AF144511	Pseudotsuga sinensis	CAA53073.1	X75324	Lycopersicon esculentum
AAF74016.2	AE144523	Nothotsuga longibracteata	AAF08537.1	AF191098	Pisum sativum
AAE74022.2	AF144529	Cedrus atlantica	BAA96460.1	AB029400	Brassica rapa
AAE74018.2	AF144525	Tsuga canadensis			
AAE74002.2	AF144509	Pseudotsuga sinensis	SEQ ID NO.	567	
AAF74001.2	AF144508	Pseudotsuga menziesii	AAF60293.1	AF233745	Lycopersicon esculentum
•	AF144500	Pinus banksiana			
AAF73992.1	AF144499	Pinus banksiana	SEQ ID NO.	568	
CAB97359.1	AJ278455	Juglans nigra	AAG28436.1	AF195029	Glycine max
AAF74003.2	AF144510	Pseudotsuga sinensis	AAG28435.1	AF195028	Glycine max
AAE73999.2	AF144506	Pseudotsuga menziesii	AAD46188.1	AF156691	Nicotiana plumbaginifolia
AAF74007.2	AF144514	Abies firma	CAA68234.1	X99972	Brassica oleracea

AAA34094.1 AAF98344.1	M80489 AF275745	Nicotiana plumbaginifolia Lycopersicon esculentum	AAA34096.1 AAG01028.1	M80492 AF289025	Nicotiana plumbaginifolia Cucumis sativus
AAD55399.1 AAA34052.1	AF179442 M27888	Lycopersicon esculentum Nicotiana plumbaginifolia	SEQ ID NO. 5	569	
CAA54046.1	X76536	Solanum tuberosum	AAC49186.1	037088	
AAA34098.1	M80490	Nicotiana plumbaginifolia	AAG28600.1	AF247134	
AAB41898.1	U84891	Mesembryanthemum crystallinum	AAC34858.1	AE082033	Hemerocallis hybrid cultiv
CAA52107.1	X73901	Dunaliella bioculata	AAB72178.1	AF009563	Brassica napus
BAA06629.1	D31843	Oryza sativa	AAA96054.1	U50771	
AAB60276.1	686600	Zea mays	CAA71898.1	X11007	Brassica juncea
CAC29435.1	AJ310523	Vicia faba	AAK11266.1	AF333040	Dunaliella salina
AAA34173.1	M60166	Lycopersicon esculentum	CAC17746.1	AJ291728	Zea mays
CAB69824.1	AJ271439	Prunus persica	AAC25109.1	AE054497	Brassica napus
AAD46187.1	AF156683	Nicotiana plumbaginifolia	AAC25110.1	AF054498	Brassica napus
AAB49042.1	U54690	Dunaliella acidophila	AAC25111.1	AF054499	Brassica rapa
CAA59799.1	X85804	Phaseolus vulgaris	AAC25112.1	AF054500	Brassica oleracea
AAB84202.2	AF029256	Kosteletzkya virginica			
CAA47275.1	X66737	Nicotiana plumbaginifolia	SEQ ID NO.	571	
AAB35314.2	S79323	Vicia faba	AAD41126.1	AF159061	Oryza sativa subsp. indica
	AB022442	Vicia faba	BAA92697.1	AB039916	Vicia faba
CAC29436.1	AJ310524	Vicia faba	BAA92698.1	AB039917	
AAK31799.1	AY029190	Lilium longiflorum	CAC11129.1	AJ298829	Fagus sylvatica
CAA54045.1	X76535	Solanum tuberosum	AAC72838.1	AF097182	Oryza sativa
BAA01058.1	D10207	Oryza sativa	AAD09953.1	AF107464	Hevea brasiliensis
AAB17186.1	072148	Lycopersicon esculentum	CAA81126.1	226041	Helianthus annuus
CAB85495.1	AJ132892	Medicago truncatula	AAA91806.1	049113	Oryza sativa
CAB85494.1	AJ132891	Medicago truncatula	CAB07806.1	293771	Nicotiana tabacum
CAA59800.1	X85805	Zea mays	AAD48068.1	AF173881	Oryza sativa subsp. indica
BAA08134.1	D45189	Zostera marina	CAB46506.1	AJ007496	Nicotiana tabacum
CAB69823.1	AJ271438	Prunus persica	AAD22116.1	AF134552	Oryza sativa subsp. indica
AAD46186.1	AF156679	Nicotiana plumbaginifolia	BAA92699.1	AB039918	Vicia faba
AAD31896.1	AF145478	Mesembryanthemum crystallinum	CAA49849.1	X70399	Medicago sativa
BAA90510.2	AP001111	Oryza sativa	CAA40687.1	X57439	Brassica napus
AAD11617.1	AF050495	Lycopersicon esculentum	CAB07807.1	293772	Nicotiana tabacum
AAD11618.1	AF050496	Lycopersicon esculentum	CAA07471.1	AJ007333	Catharanthus roseus
AAA34138.1	M96324	Lycopersicon esculentum	AAF86353.1	AF283668	Oryza sativa subsp. indica
CAA63790.1	X93592	Dunaliella bioculata	CAA81395.1	226654	Acetabularia cliftonii
AAA81348.1	038965	Vicia faba	CAA87385.1	247076	Malus x domestica
AAK32118.1	AF308816	Hordeum vulgare	CAA05491.1	AJ002485	Medicago sativa
AAK32119.1	AE308817	Hordeum vulgare	CAA82263.1	228627	Acetabularia cliftonii
AAF97591.1	AF263917	Lycopersicon esculentum	CAA07470.1	AJ007332	Catharanthus roseus

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Lactuca sativa	Hevea brasiliensis	Hevea brasiliensis	Haematococcus pluvialis			Nicotiana tabacum	Daucus carota	Chlamydomonas reinhardtii			Petunia x hybrida	Datisca glomerata	Nicotiana tabacum	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Oryza sativa	Brassica rapa	Brassica rapa	Petunia x hybrida	×	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida			Picea mariana				
AF188062	AF111842	AF111843	AF082326	AF082325	AB019034	Y09634	AF227951	AF082869		573	D26086	AF119050	AF053077	D26084	D26083	D26085	AF332876	076554	U76555	AB035132	AB006597	AB035133	AB006605	AB000453	AB006606	AB006600	AB000455	AB006598	AB006599	AB000451	AB006604	AB006603	AB000452	AB006601	AB006602	AB000454	AB000456		574	AF051246
AAF29975.1	AAD41765.1	AAD41766.1	AAC32209.1	AAC32208.1	BAA33978.1	CAA70850.1	AAF91499.1	AAC32601.1		SEQ ID NO.	BAA05079.1	AAD26942.1	AAC06243.1	BAA05077.1	BAA05076.1	BAA05078.1	AAK01713.1	AAB53260.1	AAB53261.1	BAA96070.1	BAA21919.1	BAA96071.1	BAA21927.1	BAA19112.1	BAA21928.1	BAA21922.1	BAA19114.1	BAA21920.1	BAA21921.1	BAA19110.1	BAA21926.1	BAA21925.1	BAA19111.1	BAA21923.1	BAA21924.1	BAA19113.1	BAA19926.1			AAC32146.1
Phaseolus vulgaris	Chlamydomonas reinhardtii	Vicia faba	Zea mays	Medicago sativa subsp. x varia	Nicotiana tabacum	Medicago sativa	Nicotiana tabacum	Acetabularia cliftonii	Nicotiana tabacum	Brassica oleracea	Medicago sativa	Oryza sativa	Medicago sativa	Brassica napus	Malus x domestica		Vicia faba	Fagus sylvatica	44	Fagus sylvatica			aba	Medicago sativa subsp. x varia			Brassica oleracea var. botrytis		Clarkia breweri	Nicotiana tabacum	Adonis palaestina	Adonis palaestina	Clarkia brewer1	Lactuca sativa	Nicotiana tabacum	Tagetes erecta	Tagetes erecta	Camptotheca acuminata	Camptotheca acuminata	Clarkia xantiana
248221	AF156101	AB038648	M60215	X80788	293768	AJ002487	293769	228632	293770	X63558	AJ002486	031773	AJ002488	X57438	247077	247078	AB038787	AJ298828	AB038788	AJ298986	AB038790	AB038789	AB038791	AF196285	Č	2/5	AF236092	AF188065	048963	AB049816	AF188061	AF188060	X82627	AF188063	AB049815	AF188064	AF251011	AF031079	AF031080	048962
CAA88254.1	_	_	_	_	_	_	CAB07804.1	_	_	_	۲.	۲.	۲.	_	_	CAA87387.1	BAA92334.1	_	_	_	BAA92337.1		~ ₁				AAF36996.1	AAF29978.1	⊣ ,	⊢ !	AAF29974.1	AAE29973.1	CAA57947.1	۲.		AAF29977.1		AAB94132.1	AAB94133.1	

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Picea mariana Physcomitrella patens Lotus japonicus Gossypium hirsutum Oryza sativa Gossypium hirsutum Zea mays Physcomitrella patens	Oryza sativa Oryza sativa Oryza sativa Oryza sativa Zea mays Erysimum cheiri Volvox carteri Beta vulgaris Pisum sativum Pisum sativum Lotus japonicus	Pisum sativum Lotus japonicus Daucus carota Capsicum annuum Lycopersicon esculentum Lotus japonicus Lotus japonicus Petunia x hybrida	Lithospermum erythrorhizon Glycine max Rubus idaeus Populus tremuloides Lithospermum erythrorhizon Nicotiana tabacum Populus x generosa Rubus idaeus Lolium perenne Oryza sativa Nicotiana tabacum Solanum tuberosum
AF051223 AF233446 273962 S79308 AB029510 S79309 AF126052 AF233447	AF239751 AP001859 AB029508 AE126054 AF161018 L08128 Z49152 Z49900 Z73944	249902 273948 AJO01367 AF108883 U38466 273936 273947 U35026	577 X699367 X69955 AF239685 AF041050 D49366 U50846 AF008184 AF239686 AF05221 X52623 U50845
AAC32124.1 AAF43429.1 CAA98190.1 AAB35093.1 BAA84494.1 AAB35094.1 AAB34355.1 AAB34355.1	AAF43923.1 BAA84475.1 BAA84493.1 BAD34357.1 AAD45722.1 AAA34251.1 CAA89021.1 CAA890081.1 CAA90080.1	CAA90082.1 CAA98176.1 CAA04701.1 AAF65510.1 AAA80680.1 CAA98164.1 CAA98175.1	SEQ ID NO. BAA08366.2 CAC36095.1 AAF91308.1 AAC24504.1 BAA08365.1 AAB18638.1 AAF91309.1 AAF37732.1 CAA36850.1 AAB18637.1
Oryza sativa Oryza sativa Petunia x hybrida Spinacia oleracea Oryza sativa Cicer arietinum Oryza sativa	Pisum sativum Brassica rapa Mesembryanthemum crystallinum Flaveria bidentis Helianthus annuus Spinacia oleracea Lolium perenne Capsicum annuum Saccharum officinarum	trivum a oleracea ativum b bidentis ativa sicon esculer	Mitochondrion Fisum Sativum Beta vulgaris Nicotiana tabacum Oryza sativa subsp. japonica Oryza sativa subsp. japonica Lotus japonicus Zea mays Cicer arietinum Oryza sativa Zea mays Brassica rapa Physcomitrella patens Physcomitrella patens
AB026565 AB014058 AF088915 D78172 AB026567 AJ011383 AB026563	575 AF191098 AB029400 AF072289 U10283 U72142 D10659 AF271362 AF108881 U55019	X71388 D11465 Z37990 U10282 D16292 X75324	L19093 Z49191 AJ222545 AF329814 AF126055 AB024996 AF126053 AF126053 AF146341 AF146341
BAA96836.1 BAA28276.1 AAC35983.1 BAA21650.1 BAA96838.1 CAA09603.1 BAA96834.1	SEQ ID NO. 5 AAF08537.1 BAA96460.1 AAC25999.1 AAB67996.1 BAA01510.1 AAF65509.1 AAB40609.1	idadada .	AAA96980.1 CAA89050.1 CAA10815.2 AAK27450.1 AAE28764.1 CAA98189.1 AAD34358.1 BAA76424.1 AAB97458.1 AAB97458.1 AAB97458.1 AAB97458.1 AAB97458.1

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	Oruga estima	Solanum tuberosum	Solanum tuberosum		Solanum tuberosum	Triticum aestivum	Cichorium intybus	Triticum aestivum	Triticum mentium	יייייי מפנדימוו		Pimpinella brachycarpa	Pimpinella brachycarpa	Pimpinella brachycarpa	Glycine max	Physcomitrella patens		Zinnia elegans	Physcomitrella patens				Zinnia elegans	Lycopersicon esculentum	Physcomitrella patens	Physcomitrella patens				Spinacia oleracea	Chloroplast Pisum sarivum		20.0))		Medicago sativa		Oryza sativa
U90214	AF143442 APOOO815	S73826	S73827	X82544	S73828	D30809	AF067187	D30810	D12919	1	580	X94375	X94449	X95193	X92489	AB028075	U30475	AB042767	AB028074	AB028076	AB028077	AB028078	AB042769	X94947	AB028073	AB028080	AB028079		581	Z54351	AF144684	AE039304	AF039305		582	AFISTOR	583	AP001550
AAB68661.1	BAA87835.1	AAB31249.1	AAB31250.2	CAA57894.1	AAB31251.2	BAA06486.1	AAC24123.1	BAA06487.1	BAA02303.2		SEQ ID NO.	CAA64152.1	CAA64221.1	CAA64491.1	CAA63222.1	BAA93463.1	AAA74017.1	BAB18169.1	BAA93462.1	BAA93464.1	BAA93465.1	BAA93466.1	BAB18171.1	CAA64417.1	BAA93461.1	BAA93468.1	BAA93467.1		SEQ ID NO.	CAA91162.1	AAD33936.1	AAC05019.1	AAB96657.1		SEQ ID NO.	T.0200.T	SEO ID NO.	
Capsicum annuum	Rubus idaeus		Populus x generosa	Populus tremuloides	Petroselinum crispum	Petroselinum crispum	Lolium perenne	Lolium perenne	Pinus taeda	Pinus taeda	Pinus taeda	Pinus taeda	Solanum tuberosum	Picea smithiana	Pinus armandii	Cathaya argyrophylla	Pinus armandii	Pinus armandii	Glycine max	Nothotsuga longibracteata	Pseudotsuga sinensis	Cedrus atlantica	Tsuga canadensis	Tsuga canadensis	Pseudotsuga menziesii	Pseudotsuga sinensis	Juglans nigra	Pseudotsuga sinensis	Pinus banksiana	Pseudotsuga menziesii	Pinus banksiana	Abies firma	Sorghum bicolor	Pseudotsuga menziesii		Triticum aestivum	Nicotiana tabacum	Triticum aestivum
AF212317	AF239687	D43773	AF008183	AF041049	X13324	X13325	AF052222	AF05223	U39405	039404	012013	U12012	AF150687	AF144504	AF144502	AF144505	AF144501	AF144503	X69954	AF144523	AF144511	AF144529	AF144526	AF144525	AF144508	AF144509	AJ278455	AF144510	AF144500	AF144506	AF144499	AF144514	U23787	AE144507	578	012921	AF031487	X56782
AAG43823.1	AAF91310.1	BAA07828.1	AAC39365.1	AAC24503.1	CAA31696.1	CAA31697.1	AAE37733.1	AAF37734.1	AAB42383.1	AAB42382.1	•	AAA92668.1	AAD40665.1	AAF73997.2	AAF73995.2	AAF73998.2	AAE73994.2	AAF73996.2	CAA49575.1	AAE74016.2	AAF74004.2	AAE74022.2	AAE74019.2	AAE74018.2	AAE74001.2	AAF74002.2	CAB97359.1	AAE74003.2	AAF73993.2	AAF73999.2	AAF73992.1	•	AAA64913.1	AAF74000.2	SEQ ID NO. 5	BAA02305.2	AAF06696.1	CAA40102.1

1 20801344	AF180356	Brassica Oleracea	AAB80919.1	AE020787	Orvza sativa
AAF19403.1	AF203481				1
AAF19402.1	AF203480	Lycopersicon esculentum		590	
BAA05648.1	D26601	Nicotiana tabacum	AAC09422.1	MORYZY	Mitochondrion Marchantia
CAA73068.1	X12465	$^{\circ}$	polymorpha		
BAA34675.1	AB011670	Triticum aestivum		;	
BAA13440.1	D87707	Ipomoea batatas		603	
AAF23900.1	AF194413	Oryza sativa	AAD02328.1	AF044573	Brassica oleracea
AAF23901.2	AF194414	Oryza sativa	AAC49651.1	068461	Striga asiatica
AAD17800.1	AE090835	Mesembryanthemum crystallinum	AAC49652.1	068462	Striga asiatica
CAA73067.1	X12464	Sorghum bicolor	AAE40438.1	AF234528	Avena nuda
BAA12715.1	D85039	Zea mays	BAA89214.1	AB032361	Mimosa pudica
CAA89202.1	249233	Chlamydomonas eugametos	AAC31886.1	AF059484	Gossypium hirsutum
AAF21062.1	AF216527	Dunaliella tertiolecta	CAA39280.1	X55751	Solanum tuberosum
AAB80693.1	069174	Glycine max	CAA45149.1	x63603	Nicotiana tabacum
CAA39936.1	X56599	Daucus carota	AAF71265.1	AF246715	Phalaenopsis sp. 'True Lady'
AAB47181.1	S82324	Zea mays	CAA33874.1	X15865	Oryza sativa
BAA12691.1	D84507	Zea mays	CAA39278.1	X55749	Solanum tuberosum
AAG01179.1	AF289237	Zea mays	AAD41039.1	AF112538	Malva pusilla
CAA58750.1	X83869	Daucus carota	AAG10041.1	AF288226	Setaria italica
BAA12692.1	D84508	Zea mays	AAF03692.1	AF172094	
CAA57157.1	X81394	Oryza sativa	AAD03741.1	AF111812	Brassica napus
AAD23582.1	AF128443	Glycine max	CAA47899.1	x67666	Pisum sativum
BAA19553.1	D64036	Oryza sativa	AAF82805.1	AF282624	Helianthus annuus
CAA65244.1	X95997	Solanum tuberosum	CAA48609.1	X68649	Pisum sativum
CAA07481.1	AJ007366	Zea mays	AAF31643.1	AF143208	Vigna radiata
AAG46110.1	AC073166	Oryza sativa	CAA39281.1	X55752	Solanum tuberosum
CAA65500.1	x96723	Medicago sativa	CAA34356.1	X16280	Oryza sativa
AAA69507.1	U28376	Zea mays	CAA55923.1	X79378	Sorghum bicolor
AAD28192.2	AF115406	Solanum tuberosum	AAF71264.1	AE246714	Phalaenopsis sp. 'True Lady'
BAA22410.1	D38452	Zea mays	AAB38512.1	U81047	Pisum sativum
CAA71142.1	X10036	Cucumis sativus	AAB38511.1	U81046	Pisum sativum
AAG36872.1	AF239819	Zea mays	AAB18642.1	U76191	Pisum sativum
AAC04324.1	073937	Nicotiana tabacum	AAB18641.1	076190	Pisum sativum
BAA02698.1	D13436	Oryza sativa	CAA62028.1	X90378	Pisum sativum
BAA83689.1	AB011968	Oryza sativa	CAA39279.1	X55750	Solanum tuberosum
CAA72362.1	X11649	Zea mays	AAC64127.1	AF091809	Anemia phyllitidis
CAA43659.1	X61387	Zea mays	AAC16054.1	AF061019	Coleochaete scutata
BAA05649.1	D26602	Nicotiana tabacum	AAB38514.1	U81049	Pisum sativum
			AAB18644.1	U76193	Pisum sativum
SEQ ID NO. 5	584		AAC16055.1	AF061020	Mesostigma viride

ר סטנואטטעע	01010036	Dromie rhillitiate	L 0284487	301537	Nicottiana tabaciim
AAA33433.1	A£031810 J01238	Zea mays	BAA34919.1	AB012716	Arcoctana Salix gilgiana
AAC05272.1	AF049106	Glycine max	AAB65162.1	AF002667	Solanum commersonii
CAA33873.1	X15864	Oryza sativa	CAA47345.1	X66874	Phaseolus vulgaris
AAF87302.1	AF281323	Magnolia denudata	AAB91473.1	AF035458	Spinacia oleracea
BAA09450.1	D50839	Chlamydomonas reinhardtii	AAB96660.1	AF039084	Spinacia oleracea
BAA09449.1	D50838	Chlamydomonas reinhardtii	AAB91472.1	AE035457	Spinacia oleracea
AAC16053.1	AF061018	Scherffelia dubia			
AAA33940.1	J01297	Glycine max		60.7	
CAA23728.1	V00450	Glycine max	AAB05641.1	041385	Ricinus communis
AAA34243.1	M33963	Volvox carteri	AAD28260.1	AF131223	Datisca glomerata
BAA25911.1	AB013098	Nannochloris bacillaris	CAA77575.1	Z11499	Medicago sativa
AAD48335.1	AF090969	Selaginella apoda	CAC21228.1	AJ277377	Triticum turgidum subsp. d
AAD48336.1	AF090970	Cosmarium botrytis	CAC21230.1	AJ277379	Triticum turgidum subsp. d
AAC64129.1	AF091811	c	AAA19660.1	U11496	
CAA39276.1	X55746	Solanum tuberosum	BAB18780.1	AB047268	Cucumis sativus
			CAC21229.1	AJ277378	Triticum turgidum subsp. durum
SEQ ID NO.	909		CAC21231.1	AJ277380	Triticum turgidum subsp. durum
AAB88009.1	AF035414	Brassica napus	BAA92322.1	AB039278	
AAB88134.1	AF034618	Spinacia oleracea	AAD55566.1	AF110784	ri f. nagarie
CAA47948.1	X67711	Orvza sativa	AAD02069.1	AF036939	Chlamydomonas reinhardtii 9
CAB72129.1	AJ249330	Cucumis sativus	AAC49896.1	AF027727	reinhardtii
CAB72130.1	AJ249331	Cucumis sativus	CAA72092.1	Y11209	Nicotiana tabacum
CAA37971.1	X54030	Lycopersicon esculentum			
AAF34134.1	AF161180	Malus x domestica	SEQ ID NO. (809	
AAB88133.1	AF034617	Spinacia oleracea	AAB72047.1	AF006489	Gossypium hirsutum
AAB88132.1	AF034616	Spinacia oleracea	CAA05979.1	AJ003197	Lupinus albus
AAB97316.1	AF033852	Spinacia oleracea	CAA44054.1	X62123	Solanum tuberosum
AAB42159.1	L41253	Lycopersicon esculentum	AAB49700.1	089839	Lycopersicon esculentum
CAA42685.1	X60088	Daucus carota	CAA40782.1	X57557	Solanum tuberosum
CAA30018.1	X06932	Petunia x hybrida	BAA02161.1	D12637	Oryza sativa
CAA43711.1	X61491	Spinacia oleracea	CAA41812.1	X59086	Zea mays
CAA37970.1	X54029	Lycopersicon esculentum	CAA40781.1	X57556	Zea mays
AAB99745.1	AF005993	Triticum aestivum	CAA33743.1	X15712	Zea mays
CAA67867.1	X99515	Pisum sativum	CAA33742.1	X15711	Zea mays
CAA44620.1	X62799	Glycine max	CAA65119.1	X95863	Triticum turgidum
AAB00730.1	M76725	Chlamydomonas reinhardtii	CAA26600.1	X02842	Zea mays
AAA34139.1	L08830	Lycopersicon esculentum	CAA65120.1	X95864	Triticum turgidum
CAB72128.1	AJ249329	Cucumis sativus	CAA46311.1	X65194	Chlamydomonas reinhardtii
AAA21808.1	L23551	Spinacia oleracea	AAA33027.1	M76669	Chlorella kessleri
AAB86942.1	AF031241	Glycine max	AAB72048.1	AF006490	Gossypium hirsutum

25	it.	
Persea americana Zea mays Zea mays Glycine max Glycine max Alopecurus myosuroides Alopecurus myosuroides Alopecurus myosuroides Alopecurus myosuroides Triticum aestivum Petunia x hybrida Triticum aestivum Oryza sativa Zea mays		Triticum aestivum
AF133894 AJ010296 AJ010295 AF243379 AF243377 AJ010451 AJ010452 AF184059 XO7721 X56012 AF044674 U12679 X79515 M16901 M16902	AF244677 X56004 AF244680 AF244673 AF244673 AJ002380 AJ279691 AJ002381 AJ002381 AJ002381 AF069318	X57952
AAE61392.1 CAB38119.1 CAB38118.1 AAG34814.1 AAG34812.1 CAA09193.1 CAA09192.1 CAA09192.1 CAA09192.1 CAA09192.1 CAA09192.1 AAG34817.1 AAC64007.1 AAC33487.1 AAC3469.1 AAG34820.1 AAG34821.1 AAG34821.1		CAA41020.1
Panicum miliaceum Panicum miliaceum Panicum miliaceum Spinacia oleracea Zea mays Onobrychis viciifolia Bruguiera gymnorhiza Volvox carteri Plastid Triticum aestivum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Saccharum hybrid cultivar H65- Oryza sativa Porteresia coarctata	Beta vulgaris Beta vulgaris Brassica napus Brassica napus Brassica napus Pisum sativum Solanum tuberosum Spinacia oleracea Plastid Pisum sativum Oryza sativa Pisum sativum Oryza sativa Solanum tuberosum Musa acuminata Solanum tuberosum Solanum tuberosum Solanum tuberosum Silene vulgaris Nicotiana plumbaginifolia	Silene vulgaris
D45074 D45073 D45075 D45075 609 X05512 M87435 AF026400 AB043962 U22330 C10 X65540 X65540 X74418 AB035313 Y14608 X89006 AB007193 AF218845	AF317553 M80597 U20179 AF081796 X68826 AF134051 X61690 AJ133598 X53957 AB007194 AJ243392 AF130251 X76946 AF002692 X78203 D10524 M84968 Z71749	M84969
		AAA33931.1

E	c co	258	e e
Lycopersicon esculentum Taxus cuspidata Cucurbita maxima Hordeum vulgare Helianthus annuus Solanum melongena Capsicum annuum Glycine max Glycine max	Thlaspi arvense Berberis stolonifera Coptis japonica Catharanthus roseus Solanum melongena Eschscholzia californica Glycine max Mentha spicata Eschscholzia californica Glycine max	4 33600	Lycopersicon esculentum Ipomoea nil Oryza sativa Lycopersicon esculentum Triticum aestivum Zea mays Catharanthus roseus Oryza sativa Nicotiana tabacum Secale cereale Euphorbia esula Picea mariana Triticum aestivum
U54770 AF318211 AF212991 AF326277 AF216313 X71656 AF122821 AF022464 D86351	L24438 U09610 AB025030 AJ238612 X71657 AF014800 AF135485 AF124815 AF014801 D83968	AF191772 AF022458 AJ000477 AJ000478 AJ239051 AB024931 AB023636	M96549 M99431 Z11920 AF123259 U55859 S59780 L14594 AB037681 X63195 Z30243 AF221856 AFC51230
AAB17070.1 AAK00946.1 AAG41777.1 AAK11616.1 AAF20011.1 CAA50647.1 AAB94593.1 BAA13076.1	AAA19701.1 AAC48987.1 BAB12433.1 CAB56503.1 CAA50648.1 AAC39452.1 AAC39452.1 AAC39453.1 BAA12159.1		AAB01376.1 AAA33748.1 CAA77978.1 AAD11549.1 AAB26482.2 AAA16785.1 BAA90487.1 CAA44877.1 CAA4877.1 AAF31705.1 AAF31705.1
Pisum sativum Spinacia oleracea Spinacia oleracea Mesembryanthemum crystallinum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Beta vulgaris	Solanum tuberosum Nicotiana tabacum Ipomoea nil Zea mays Canavalia gladiata Oryza sativa Triticum aestivum Hordeum vulgare Zea mays	Brassica rapa Glycine max Oryza sativa Oryza sativa Oryza sativa Oryza sativa Crirus x paradisi Glycine max	Brassica rapa Glycine max Oryza sativa Oryza sativa Oryza sativa Oryza sativa Phaseolus coccineus Citrus x paradisi Glycine max
Y11248 X07654 M21338 M73707 M36123 AF228914 AF173671	AJ002391 AF002226 U39747 X58282 AB000637 AF093632 Z11540 Z50799 AJ006708	617 L31937 U12150 U72942 AP000615 AF044059 AF293407 AF29355	618 L31937 U12150 AF044059 U72942 AP000615 AF293407 AF283535 Z13956 619
CAA72118.1 CAA30499.1 AAA34036.1 AAA33034.1 AAA33090.1 AAA36402.1 AAD55057.1		SEQ ID NO. AAA91049.1 AAC97524.1 AAB17095.1 BAA85411.1 AAC17880.1 AAG38520.1 CAA78359.1	SEQ ID NO. AAA91049.1 AAC97524.1 AAC00503.1 AAB17095.1 BAA85411.1 AAG17880.1 AAG38520.1 CAA78359.1. SEQ ID NO. AAF89209.1

CAA78738.1	215018	Oryza sativa	AAA99439.1	L24547 X12855	Volvox carteri Volvox carteri
SEO ID NO. (622		AAA33804.1	M33371	Polytomella agilis
9708.1	L10634	Zea mays	AAA33803.1	M33373	Polytomella agilis
AAD10489.1	U76746	Triticum aestivum	AAB03892.1	M33372	Polytomella agilis
AAD20178.1	AF059287	Eleusine indica	AAB60936.1	AF001379	Chlamydomonas incerta
AAK09229.1	AC084320	Oryza sativa	CAA38614.1	X54845	Pisum sativum
BAA02505.1	D13224	Oryza sativa	AAD10493.1	U76897	Triticum aestivum
BAA06382.1	D30717	Oryza sativa	BAA82639.1	D63138	Zinnia elegans
AAD20180.1	AF059289	Eleusine indica	CAA38615.1	X54846	Pisum sativum
CAA55912.1	X79367	Oryza sativa			
CAA38613.1	X54844	Pisum sativum	SEQ ID NO.	624	
AAD10490.1	076895	Triticum aestivum	BAA78764.1	AB023482	Oryza sativa
CAA48929.1	X69185	Anemia phyllitidis	AAF43496.1	AF131222	Lophopyrum elongatum
	D63136	Zinnia elegans	AAK11674.1	AF339747	Lophopyrum elongatum
CAA49736.1	X70184	Lupinus albus	AAG16628.1	AX007545	Brassica napus
AAA20186.1	L10633	Zea mays	BAA94509.1	AB041503	Populus nigra
BAA06381.1	D30716	Oryza sativa	BAA94510.1	AB041504	Populus nigra
CAA55022.1	X78143	Oryza sativa	AAK21965.1	AX028699	Brassica napus
CAA70891.1	Y09741	Hordeum vulgare	CAB51834.1	69000	Oryza sativa
AAB03267.1	047660	Lupinus albus	AAG03090.1	AC073405	Oryza sativa
AAD10488.1	U76745	Triticum aestivum	AAF91337.1	AF249318	Glycine max
AAA34010.1	M21297	Glycine max	AAF91336.1	AF249317	Glycine max
BAA82638.1	D63137	Zinnia elegans	AAC61805.1	U28007	
AAB64308.1	063927	Daucus carota	AAF76307.1	AF220602	Lycopersicon pimpinellifolium
CAA52720.1	X74656	Zea mays	AAB47424.1	059317	Lycopersicon pimpinellifolium
AAD20181.1	AF059290	Eleusine indica	AAC27894.1	AF023164	Zea mays
AAD20179.1	AF059288	Eleusine indica	AAG33377.1	AF290411	Oryza meyeriana
AAD10487.1	U76744	Triticum aestivum	AAB09771.1	U67422	Zea mays
CAA67056.1	X98406	Cicer arietinum	BAA94529.2	AP001800	Oryza sativa
AAD10492.1	076896	Triticum aestivum	AAC27895.1	AF023165	Zea mays
CAA52718.1	X74654	Zea mays	CAA73134.1	X12531	Brassica oleracea
CAA37060.1	X52878	Zea mays	BAA94516.1	AP001800	Oryza sativa
AAA19709.1	L10636	Zea mays	AAK11566.1	AF318490	Lycopersicon hirsutum
CAA83853.1	Z33402	Solanum tuberosum	AAF34428.1	AF172282	Oryza sativa
CAA83847.1	233382	Solanum tuberosum	CAA97692.1	273295	Catharanthus roseus
CAA37061.1	X52879	Zea mays	BAA94517.1	AP001800	Oryza sativa
AAA19707.1	L10635	Zea mays			-
CAA52719.1	X74655	Zea mays		626	
AAA33102.1	K03281	as	AAD10241.1	AF020716	Triticum aestivum
AAA33101.1	M10064	Chlamydomonas reinhardtii	CAB06653.1	285984	Oryza sativa

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Daucus carota Brassica napus	Nicotiana tabacum	Lycopersicon esculentum	Lycopersicon esculentum	Solanum tuberosum	Hordeum vulgare	Glycine max	Glycine max	Oryza sativa	Nicotiana tabacum			Hordeum vulgare		Brassica juncea	Zea mays	mn	indicum	Perilla frutescens	Solanum tuberosum	Capsicum annuum	Petroselinum crispum	Chloroplast Glycine soja	Vernicia fordii	Limnanthes douglasii	Vernicia fordii	Zea mays	Zea mays	Triticum aestivum	Chloroplast Brassica napus		Vernicia fordii	Pelargonium x hortorum	Brassica napus	Chloroplast Glycine soia		Perilla frutescens	Triticum aestivum	
X56599 AJ010091	D26602	AF203481	AF203480	X95997	X82548	AF203479	AF128443	AF172282	D26601		634	AF268595	635	AJ250316	D63954	D79979	/T8C70	U59477	AJ007/39	AF222989	075745	L22965	AE200717	U17063	AF061027	D84409	D63953	D43688	L22963	AF047172	AJ011004	AF020204	L22962	L22964	L01418	AF047039	D84678	
CAA39936.1 CAA08995.1	BAA05649.1	AAE19403.1	AAF19402.1	CAA65244.1	CAA57898.1	AAF19401.1	AAD23582.1	AAF34436.1	BAA05648.1		SEQ ID NO.	AAF73075.1		CAB85467.1	BAA22441.1	BAA11475.1	AAA/0334.1	AAB39387.1	CAAU/638.1	AAF2/933.1	AAB72241.1	AAA61776.1	AAF12821.1	AAA86690.1	AAD13527.1	BAA22442.1	BAA22440.1	BAA07785.2	AAA61774.1	AAC98967.1	CAB45155.1	AAC16443.1	AAA61775.1	AAA61777.1	AAA32994.1	AAD15744.1	BAA28358.1	
Oryza sativa Triticum aestivum		Orvza sativa	Oryza sativa	Lupinus luteus			Oryza sativa	Oryza sativa	Nicotiana tabacum	sat	ari	Oryza sativa		Triticum aestivum	Typna latifolia			brassica napus			Mesembryanthemum crystallinum		Chlamydomonas reinhardtii	Oryza sativa	Oryza sativa	Sorghum bicolor	Zea mays	Oryza sativa	Chlamydomonas eugametos	Sorghum bicolor	m		Kalanchoe fedtschenkoi	Oryza sativa	Oryza sativa	Dunaliella tertiolecta	Cucumis sativus	
AC084218 AF020717	678	AP001081	AP002486	X91787		629	AB045121	AB023482	AF211532	AP001080	AB026262	AP001168	630	AF093752	Arsonose	632	757 75100300	AE 109392	633	00000	220329	AB042715	AB042714	AB011968	AB011967	Y12464	AF141378	AP002482	249233	X12465	AB011670	AF162661	AF162662	AP001168	AF004947	AF216527	X10036	
AAG48835.1 AAD10242.1	ON OT ORS		BAB03361.1	CAA62901.1			BAA96875.1	BAA78746.1	AAG43550.1	BAA90357.1	BAA77204.1	BAA90806.1		AAD50592.1	AA622093.1	SEO TO NO.		AME 2 1301.1	ON OT ORG		CAB62632.1	BAB18105.1	BAB18104.1	BAA83689.1	BAA83688.1	CAA73067.1	AAF22219.1	BAA96628.1	CAA89202.1	CAA73068.1	BAA34675.1	AAF06969.1	AAE06970.1	BAA90814.1	AAB62693.1	AAF21062.1	CAA71142.1	

:5.1 X81831 Zea mays			52.1 AF214008 Brassica napus	51.1 AF214007 Brassica napus			ID NO. 639		2.00 Tea	AB042268 Zea	AF339732 Diar		AB024291	12.1 AB031011 Zea mays	AB004882 Zea	00.1 AB042260 Zea mays		AB060130 7.88	ABUGULSO DEL		640	AF211532 Nicoti	AB023482 Oryza	AB045121 Oryza	AP001080 Oryza	AB026262 Cicer	06.1 AP001168 Oryza sativa		642	AF150084 Malus X c	92.1 AFISUUBS Brassica rapa		644	X66469 Medicago	L07042		36.1 X70703 Pisum sativum	34.1 AB016802 Zea mays	20.1 AF247136 Capsicum annuum	96.1 U94192 Nicotiana tabacum	66 1 AP242308 Euchorbia esula
Nicotiana tabacum CAA57425.	Orvza sativa	Glycine max AAG44132.1	Zea mays AAG14962.1	Organ Sativa	Q	a	CHS	amum indicum Siduli officinalia BAB2	o	Petroselinum crispum BAB20373.	AAK14395.1		Trition postitum	בוכתון מכס בו כחוו	BAA75253.1	Thless says BAB17300.1		פפש שוופדדכשוום	ghum bicolor		aragus officinalis	×	Nepeta racemosa	Nepeta racemosa	cine max	anum melongena	Glycine max BAA90806.1	otiana tabacum	Capsicum annuum SEQ ID NO.	ta	Catharanthus roseus AAD39992.1	Solanum melongena	Solanum melongena SEQ ID NO.			Mentha x piperita CAA58761.1	Catharanthus roseus CAA50036.1		Lycopersicon esculentum x AAF81420.1		Brassica napus
D26509			75953U					AF192486		L U86072	900	9	1 049588		630		1729005		1 AF029858	1 AB037244	1 AB037245	1 AF022460		1 Y09424		X70981						1 X71654	1 D14990		AF12481		•		DE15088	2	3
ר אואאסמיים		1.16611mg	1.05700440	1.60#22##G	BAALLS90.1	CAB/1341.1	AAD48897.1	AAF80560.1	CAB64256.1	AAB80696.1	4	SEQ ID NO.	AAB16830.1	AAB16829.1	OK CF	SEQ IN NO.	AAAL9/UL.1	AAA32913.1	AAC39318.1	BAB40323.1	BAB40324.1	AAB94589.	٠.	•	•			AAD47832.1	AAF27282.1	CAA83941.	CAB56503.1	CAA50645.1	BAA03635.1	AAD44151.1	AAD44150.1	1 25199044	1 70876747	1 705/00/4	1.10050000	Typerenous	LYCOPETSIC

Nicotiana tabacum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Oryza sativa Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum	Nicotiana Oryza sati Lophopyrum Lophopyrum Brassica n Populus ni Populus ni Oryza sati Brassica n Oryza sati Nicotiana Lycopersice Zea mays	
AB003037 AB053091 X78589 AP002744 AB003038 AC068924 AF210816 AB053096 AB053099 AB053095 AB053095 AB053095	AB053092 AB023482 AF339747 AF131222 AY007545 AB041503 AB041504 00069 AX028699 AC073405 AF302082 UZ8007	AF023164 U93048 AF249317 AF290411 AF023165 AF318490 Z73295 AF172282 AF172282 AF220602 U59315 U02271
BAB40709.1 BAB5326.1 BAB19066.1 BAB1010.1 AAG13527.1 AAF78897.1 BAB40707.1 BAB40700.1 BAB40701.1 BAB40701.1 BAB40706.1 BAB40706.1	BAB40703.1 SEQ ID NO. BAA78764.1 AAK11674.1 AAG16628.1 BAA94510.1 BAA94510.1 CAB51834.1 AAK21965.1 AAK21965.1 AAG25966.1 AAG25966.1	AAC27894.1 AAB61708.1 AAF91336.1 AAC33377.1 AAC27895.1 AAC1566.1 CAA97692.1 AAF34428.1 AAF76306.1 AAF76306.1 AAF76306.1
Pisum sativum Medicago sativa Petroselinum crispum Nicotiana tabacum Ipomoea batatas Avena sativa Capsicum annuum Triticum aestivum Oryza sativa Oryza sativa Oryza sativa Sea mays Nicotiana tabacum	Medicago sativa Medicago sativa Chlamydomonas reinhardtii Nicotiana tabacum Pisum sativum Petunia x hybrida Oryza sativa Cryza sativa Cryza sativa Cryza sativa	Ipomoea batatas Selaginella lepidophylla Pisum sativum Lycopersicon esculentum Antirrhinum majus Chenopodium rubrum Solanum tuberosum Nicotiana tabacum Zea mays Oryza sativa
AF153061 X82270 Y12785 D61377 AF149424 X79993 AF279318 AF079318 AF079318 AF332873 AF216315 AA250311 AB016801 AB055515	X82268 AJ224336 AB035141 X69971 AF154329 X83440 AF216317 AF216316 AJ251330 AF194415 AF17392 AF194416 AF177392 AF129087	AF174291 U96716 AB008187 Y17226 X97637 Y10160 AF2028 AF223412 AP202817
AAF73236.1 CAA57721.1 CAA73323.1 BAA09600.1 AAD56314.1 AAF81419.1 AAC28850.1 AAK01710.1 AAK01710.1 AAG40579.1 CAC13967.1 BAA74733.1 BAB32406.1	CAA57719.1 CAB37188.1 BAB18271.1 CAA49592.1 AAF73257.1 CAA58466.1 AAF61238.1 AAF61238.1 AAG40580.1 CAB61889.1 AAF23902.1 AAF23902.1 AAF23903.1 CAB61750.1	AAD51717.1 AAB57843.1 BAA33152.1 CAA76701.1 CAA71242.1 SEQ ID NO. 6 AAB37756.1 AAC49393.1 AAG13460.1 BAB03437.1

AAK11567.1 AAB47421.1	AF318491 U59316	Lycopersicon hirsutum Lycopersicon esculentum	AAB38514.1	AF044573 U81049	Brassica oleracea Pisum sativum
AAF76313.1	AF220603		AAB18644.1	U76193	Pisum sativum
AAF66615.1	AF142596	Nicotiana tabacum	AAC05272.1	AF049106	Glycine max
BAA92954.1	AP001551	Oryza sativa	CAA33873.1	X15864	Oryza sativa
BAA92953.1	AP001551		AAC16055.1	AF061020	Mesostigma viride
		1	AAA33940.1	J01297	Glycine max
SEO ID NO. 6	649		BAA09450.1	050839	Chlamydomonas reinhardtii
	AF111812	Brassica napus	BAA09449.1	050838	Chlamydomonas reinhardtii
AAD41039.1	AF112538	Malva pusilla	AAC64126.1	AF091808	Anemia phyllitidis
AAG10041.1	AF288226	Setaria italica	AAA33433.1	J01238	Zea mays
RAA89214.1	AB032361	Mimosa pudica	CAA23728.1	V00450	Glycine max
AAF03692.1	AF172094	Picea rubens	CAA33871.1	X15862	Oryza sativa
AAF82805.1	AF282624	Helianthus annuns	AAA34243.1	M33963	Volvox carteri
AAF71265.1	AF246715		AAD48335.1	AF090969	Selaginella apoda
	AF059484		AAD48334.1	AF090968	Selaginella apoda
CAA39280.1	X55751	Solanum tuberosum	CAA39276.1	X55746	Solanum tuberosum
AAC49652.1	U68462	Striga asiatica			
	068461	Striga asiatica	SEQ ID NO. 6	650	
ABF31643.1	AF143208 .	Viqna radiata	BAA33803.1	AB018412	Populus nigra
1,00072447	x67666	Pisum sativum	CAA88841.1	248977	Nicotiana tabacum
CAA45149.1	X63603		AAC26785.1	AE073473	Solanum tuberosum
CAA39281 1	X55752		CAA51931.1	X73528	Triticum aestivum
CAA48609.1	X68649	Pisum sativum	CAA33303.1	X15233	Triticum aestivum
CAA39278.1	X55749	Solanum tuberosum	BAA33802.1	AB018411	Populus nígra
AAF71264.1	AF246714	Phalaenopsis sp. 'True Lady'	CAA48479.1	X68430	Spinacia oleracea
AAB38512.1	U81047	Pisum sativum	AAE85975.1	AE275639	Pisum sativum
AAB38511.1	U81046	Pisum sativum	CAA33302.1	X15232	Triticum aestivum
AAB18642.1	076191	Pisum sativum	BAA33801.1	AB018410	Populus nigra
AAB18641.1	076190	Pisum sativum	CAA88840.1	248976	Nicotiana tabacum
CAA62028.1	X90378	Pisum sativum	AAD55564.1	AF110782	Volvox carteri f. nagariensis
AAC64127.1	AF091809	Anemia phyllitidis	AAA70082.1	U14912	Chlamydomonas reinhardtii
CAA33874.1	X15865	Oryza sativa	BAA21478.1	AB005551	Robinia pseudoacacia
AAE40438.1	AF234528		AAC32142.1	AF051241	Picea mariana
AAC64128.1	AF091810	Anemia phyllitidis	AAA86837.1	044801	Avena sativa
CAA55923.1	X79378	Sorghum bicolor			
AAC16054.1	AF061019	Coleochaete scutata		654	
CAA34356.1	X16280	Oryza sativa	CAC15504.1	AJ297917	Lycopersicon esculentum
CAA39279.1	X55750	Solanum tuberosum	CAA66236.1	X97640	Antirrhinum majus
AAC16053.1	AF061018	Scherffelia dubia	BAA90814.1	AP001168	Oryza sativa
AAF87302.1	AF281323	Magnolia denudata	AAF19401.1	AF203479	Glycine max

BAA96628.1	AP002482	Oryza sativa	CAB56503.1	AJ238612	Catharanthus roseus
	4	Glycine max	AAD47832.1	AF166332	Nicotiana tabacum
BAA05649.1	D26602	abacum	CAA50645.1	X71654	Solanum melongena
AAF05112.1	AF158091	Mesembryanthemum crystallinum	BAA03635.1	D14990	Solanum melongena
CAA65244.1	X95997	Solanum tuberosum	CAA50312.1	X70981	Solanum melongena
CAA86286.1	238126	Malus x domestica	AAG44132.1	AF218296	Pisum sativum
CAA71142.1	X10036	Cucumis sativus	AAD44151.1	AF124816	Mentha x piperita
CAA78961.1	217313	Malus x domestica	CAA70576.1	Y09424	Nepeta racemosa
CAA89202.1	249233	Chlamydomonas eugametos	CAA65580.1	X96784	Nicotiana tabacum
CAA57898.1	X82548	Hordeum vulgare	AAD44150.1	AF124815	Mentha spicata
AAF21062.1	AF216527	Dunaliella tertiolecta	AAD44152.1	AF124817	Mentha x piperita
BAA19573.1	AB002109	Oryza sativa	CAA83941.1	233875	Mentha x piperita
CAC08564.1	AJ295939	Medicago sativa	CAA64635.1	X95342	Nicotiana tabacum
CAA73068.1	X12465	Sorghum bicolor	CAA57423.1	X81829	Zea mays
CAA73067.1	X12464	Sorghum bicolor	CAA72208.1	Y11404	Zea mays
08997.1	AJ010093	Brassica napus	AAG14963.1	AF214009	Brassica napus
CAA48473.1	X68410	Medicago sativa	AAG14962.1	AF214008	Brassica napus
CAA10288.1	AJ131048	Cicer arietinum	AAG14961.1	AE214007	Brassica napus
AAB88537.1	AF035944	Fragaria x ananassa	AAC32274.1	AF081575	Petunia x hybrida
AAG60195.1	AC084763	Oryza sativa			
BAA13608.1	D88399	Oryza sativa		657	
BAB40983.1	AB059621	Oryza sativa	BAB21153.1	AP002899	Oryza sativa
BAA92214.1	AP001278	yza	BAA94219.1	AP001633	Oryza sativa
AAD37166.1	AF132743	Oryza sativa	AAC49181.1	U39289	Brassica napus
CAA11861.1	AJ224164	Petunia x hybrida	BAA94236.1	AP001633	Oryza sativa
CAA58595.1	X83620	Petunia x hybrida	BAA94228.1	AP001633	Oryza sativa
•	AF194413	Oryza sativa	BAA94224.1	AP001633	Oryza sativa
AAB66608.1	01288	Zea mays	BAA94215.1	AP001633	Oryza sativa
AAB05457.1	U55768	Oryza sativa	AAC49182.1	n39319	Brassica napus
SEQ ID NO. 6	655		SEQ ID NO. 6	199	
AAA32913.1	M32885	Persea americana	AAF91323.1	AF244889	Glycine max
AAC39318.1	AF029858	Sorghum bicolor	CAC20842.1	AJ250467	Pinus sylvestris
AAA19701.1	L:24438	Thlaspi arvense	AAB36558.1	U77888	Ipomoea nil
BAB40323.1	AB037244	Asparagus officinalis	AAF91322.1	AF244888	Glycine max
BAB40324.1	AB037245	Asparagus officinalis	AAF91324.1	AF244890	Glycine max
AAB94588.1	AF022459	Glycine max	AAC36318.1	AF053127	Malus x domestica
AAB94589.1	AF022460	Glycine max	AAF59906.1	AF197947	Glycine max
CAA70575.1	X09423	Nepeta racemosa	AAF59905.1	AF197946	Glycine max
AAF27282.1	AF122821	Capsicum annuum	BAA83373.1	AP000391	Oryza sativa
AAB94584.1	AF022157	Glycine max	BAA84787.1	AP000559	Oryza sativa

Oryza longistaminata Oryza sativa Oryza sativa Nicotiana tabacum Ipomoea nil Oryza longistaminata Daucus carota Nicotiana tabacum Triticum aestivum Triticum aestivum Triticum aestivum Cicer arietinum Solanum tuberosum Lycopersicon esculentum Picea mariana Oryza sativa Oryza sativa Oryza sativa Oryza sativa Phaseolus vulgaris Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Populus nigra Daucus carota Phaseolus vulgaris Oryza sativa Oryza sativa Oryza sativa Dopulus nigra Oryza sativa Populus nigra Oryza sativa	Oryza sativa Oryza sativa Brassica oleracea
U72723 Or U37133 Or U72724 Or AB029327 Ni U77888 U72726 Or U93048 Da A7299395 Ci A90664 Tr M90663 Tr M90664 Tr M90663 Tr M55604 Tr M90663 Da A7299395 Ci AF051239 Da AF011418 Ly AF011418 Ly AF011418 Da AF011418 Py AF011418 Py AF011519 Da AF000391 Or AF00391 Or AF001551 Or AB041504 Py AF01551 Or AB041503 Py AF01551 Da AF01551 Or AB041503 Py AF01551 Ca AF01551 Da AF01551 Da AF01551 Da AF01551 Da AF01551 Da AF01551 Da AF01551 Da AF01551 Da AF01503 Py AF01551 Da AF01551 Da	00
AAC80225.1 AAB82756.1 BAAB8636.1 BAAB82753.1 AAB82753.1 AAB82753.1 AAB82753.1 AAB82753.1 AAA34266.1 AAA34266.1 AAA34266.1 AAA34266.1 AAA34266.1 AAA34266.1 AAA34265.1 AAA34265.1 AAA34265.1 BAAB4787.1 AAAC1965.1 BAAB61708.1 AAAC1965.1 BAAB6170.1 AAAC1965.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB616628.1 BAAB61674.1 AAB93834.1	AAF34428.1 BAA94516.1 CAA67145.1
Oryza sativa Oryza sativa Oryza longistaminata Oryza sativa Oryza longistaminata Nicotiana tabacum Ipomoea nil Oryza sativa Oryza longistaminata Daucus carota Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon esculentum Lycopersicon Lycope	a)
AF172282 U72725 U37133 U72723 AB029327 U72724 U72724 U72726 U93048 AJ002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235 AJ0002235	AF000331 U77888 AF172282 U72725
AAE 842426.1 AAB 82755.1 AAC 99123.1 AAC 90225.1 BAAB 8636.1 AAB 82756.1 AAB 82756.1 AAB 82756.1 AAB 82756.1 CAAO 5276.1 CAAO 5276.1 CAAO 5279.1 AAC 78591.1 AAC 91322.1	AAB36558.1 AAF34426.1 AAF34755.1

CAA73134.1	Y12531	Brassica oleracea	CAA56314.1	X79993	Avena sativa
CAA73133.1	X12530	Brassica oleracea	CAC15504.1	AJ297917	Lycopersicon esculentum
AAF66615.1	AF142596	Nicotiana tabacum	AAK01710.1	AF332873	Oryza sativa
AAB47422.1	U59318	Lycopersicon esculentum	AAG40579.1	AF216315	Oryza sativa
AAE76314.1	AF220603	Lycopersicon esculentum	CAA50036.1	X70703	Pisum sativum
AAB47424.1	US9317		CAA58761.1	X83880	Nicotiana tabacum
			AAF65766.1	AF242308	Euphorbia esula
SEO ID NO.	673		AAD37790.1	AF149424	Ipomoea batatas
	87797X	Solanum tuberosum	CAA58760.1	X83879	Nicotiana tabacum
CAB62555.1	AJ249962	Daucus carota	AAB58396.1	094192	Nicotiana tabacum
AAF81251.1	AF267755	Mesembryanthemum crystallinum	AAF81420.1	AF247136	Capsicum annuum
			BAB18271.1	AB035141	Chlamydomonas réinhardtii
SEQ ID NO. (674		CAB37188.1	AJ224336	Medicago sativa
CAA73214.1	X12674	Brassica napus	BAA09600.1	D61377	Nicotiana tabacum
CAA69899.1	X08607	Nicotiana tabacum	AAC28850.1	AF079318	Triticum aestivum
CAA11862.1	AJ224165	×	CAA73323.1	Y12785	Petroselinum crispum
CAA11860.1	AJ224163	Nicotiana tabacum	AAD28617.1	AF129087	Medicago sativa
CAA05329.1	AJ002315	Nicotiana tabacum			
CAA11861.1	AJ224164	Petunia x hybrida		675	
CAC08564.1	AJ295939	Medicado sativa	AAF34134.1	AF161180	Malus x domestica 5
CAA05328.1	AJ002314	Nicotiana tabacum	CAA47948.1	X67711	Oryza sativa
CAA58595.1	X83620	Petunia x hybrida	CAA42685.1	X60088	Daucus carota
CAA58594.1	X83619	Petunia x hybrida	AAB88134.1	AF034618	Spinacia oleracea
CAA54803.1	X77763	Nicotiana tabacum	CAA37971.1	X54030	Lycopersicon esculentum
BAB40983.1	AB059621	Oryza sativa	CAB72129.1	AJ249330	Cucumis sativus
BAA92214.1	AP001278	Oryza sativa	CAB72130.1	AJ249331	Cucumis sativus
CAA48474.1	X68411	Medicago sativa	AAB88133.1	AF034617	
CAA48472.1	X68409	Medicago sativa	AAB88132.1	AF034616	Spinacia oleracea
CAA48473.1	X68410	Medicago sativa	AAB97316.1	AF033852	Spinacia oleracea
CAA67554.1	X99100	Trifolium repens	CAA30018.1	X06932	Petunia x hybrida
CAA73848.1	X13437	Oryza sativa	AAB88009.1	AF035414	Brassica napus
CAA10288.1	AJ131048	Cicer arietinum	CAA43711.1	X61491	Spinacia oleracea
CAA72330.1	X11591	Ricinus communis	CAA37970.1	X54029	Lycopersicon esculentum
CAA72291.1	Y11527	Oryza sativa	AAB99745.1	AF005993	Triticum aestivum
AAF23902.1	AF194415	Oryza sativa	CAA67867.1	X99515	Pisum sativum
AAD52659.1	AF177392	Oryza sativa	CAA44620.1	X62799	Glycine max
CAA57721.1	X82270	Medicago sativa	AAB00730.1	M76725	Chlamydomonas reinhardtii
AAF73236.1	AF153061	Pisum sativum	CAB72128.1	AJ249329	Cucumis sativus
AAB41548.1	L07042	Medicago sativa .	AAA34139.1	I.08830	Lycopersicon esculentum
CAA47099.1	X66469	Medicago sativa	CAA44820.1	X63106	Nicotiana tabacum
CAC13967.1	AJ250311	Oryza sativa	BAA34919.1	AB012716	Salix gilgiana

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Pisum sativum Apium graveolens Nicotiana tabacum Pisum sativum Pisum sativum	Lens culinaris Lens culinaris Lycopersicon esculentum Lens culinaris Lycopersicon esculentum Euphorbia esula Triticum aestivum Zea mays Lilium longiflorum Fritillaria agrestis Cicer arietinum Pisum sativum Triticum aestivum	Volvox carteri Lycopersicon esculentum Lycopersicon pennellii Lycopersicon chilense Spinacia oleracea Malus x domestica Triticum aestivum Spinacia oleracea Lycopersicon esculentum Glycine max Glycine max Spinacia oleracea	Spinacia oleracea Spinacia oleracea Brassica juncea Lycopersicon esculentum Brassica juncea Glycine max
X05636 Y12599 AB029614 AF352247 AF352246	AF352253 AF352251 AJ224933 AF352252 U03391 AF107024 AF107024 AF107024 AF031547 AJ006767 L34578 AF107022	L07946 211842 U01890 AF253416 680 AF034618 AF161180 AF005993 L23551 L08830 AF031241 AF338252 AF035458	AF039084 AF035457 681 Y10848 AF017983 AJ005587 AF128453
CAA29123.1 CAA73171.1 BAA88671.1 AAK29450.1 AAK29449.1	AAK29456.1 AAK29454.1 CAA12232.1 AAK29455.1 AAF27930.1 AAF27930.1 AAD41007.1 CAA40362.1 BAA87331.1 AAB86857.1 CAA07233.1 AAD41005.1	AAA74723.1 CAA77867.1 AAB03076.1 AAF64525.1 SEQ ID NO. AAB98134.1 AAF34134.1 AAA21808.1 AAA21808.1 AAA34139.1 AAAS1920.1 AAB6942.1	AAB91472.1 AAB91472.1 SEQ ID NO. CAA71801.1 AAB71230.1 CAA06613.1 AAG13459.1
Solanum commersonii Phaseolus vulgaris Spinacia oleracea Spinacia oleracea	Vicia faba Raphanus sativus Brassica oleracea Raphanus sativus Brassica oleracea Raphanus sativus Vitis vinifera Zea mays Zea mays Zea mays Zea mays Craterostiqma planiaqineum	Vitis vinifera Nicotiana tabacum Hordeum vulgare Lycopersicon esculentum Pyrus communis Zea mays Zea mays Zea mays Beta vulgaris Oryza sativa Lupinus albus Solanum tuberosum	Triticum aestivum Triticum aestivum Iriticum aestivum Lycopersicon esculentum Lathyrus sativus Lathyrus sativus Nicotiana tabacum
AF002667 X66874 AF035457 AF035084	676 AF266760 AB012044 X95639 AB030695 X95640 AB030696 AF131201 AJ224327 AF326488 AF326488 AF326487	AF188844 AF024511 X76911 X73848 AB058679 AJ271796 AF326489 U60149 AF022737 AJ222973 X18311 677 AB037681	X98582 U55859 AF123259 678 AF352250 AF352249 L29456
AAB65162.1 CAA47345.1 AAB91472.1 AAB91473.1 AAB96660.1	SEQ ID NO. AAE78062.1 BAA32777.1 CAA64895.1 BAA92258.1 CAA64896.1 BAA92259.1 AAD29676.1 CAA11896.1 AAK26755.1		

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	Oryza sativa Populus kitakamiensis	Nicotiana tabacum	Hordeum vulgare	Spinacia oleracea	Nicotiana tabacum			Oryza sativa	Oryza sativa	Hordeum vulgare	Matricaria chamomilla	Cicer arietinum	Pisum sativum	Vigna radiata	Oryza sativa	Vigna radiata	Hordeum vulgare	Oryza sativa			Lycopersicon esculentum	Hordeum vulgare	vulgare	Solanum berthaultii	Hordeum vulgare	Solanum berthaultii	Solanum berthaultii	Oryza sativa	Sorghum bicolor	Hordeum vulgare	Sorghum bicolor	Sorghum bicolor	Hordeum vulgare			Catharanthus roseus	Catharanthus roseus	Catharanthus roseus
L13653	AF24//00 D11102	D42065	M73234	X10462	D42064		683	D17587	D10985	X09604	AF141384	AJ271659	268130	U49741	AP001633	049382	X78878	AP002839	AP002539	AE248647	AF242849	X09602	X09603	AF006079	X7887X	AF006080	AF006078	D17586	AF061282	J03897	AF061282	AF061282	X78876		684	AF008597	U71605	. 071604
AAA65636.1	AAF65464.2 BAA01877.1	BAA07664.1	AAA32973.1	CAA71488.1	BAA07663.1		SEQ ID NO.	BAA04511.1	BAA01757.1	CAA70817.1	AAD42963.2	CAB71127.1	CAA92216.1	AAA92064.1	BAA94235.1	AAA92062.1	CAB59202.1	BAB19126.1	BAB08188.1	AAE64227.1	AAF44708.1	CAA70815.1	CAA70816.1	AAD01264.1	CAA55478.1	AAD01265.1	AAD01263.1	BAA04510.1	AAD22150.1	AAA32940.1	AAD22151.1	AAD22164.1	CAB58992.1		SEQ ID NO.	AAB97311.1	AAC49827.1	AAC49826.1
	Trifolium repens	Medicado sativa	Medicago sativa	Spinacia oleracea	Scutellaria baicalensis	Petroselinum crispum	Medicago sativa	Ipomoea batatas	Medicago sativa	Glycine max	Zea mays	Spinacia oleracea	Lycopersicon esculentum	Lycopersicon esculentum	Vigna angularis		Glycine max	Glycine max	Medicago sativa	Oryza sativa	Glycine max	Oryza sativa	Spirodela polyrrhiza	Populus balsamifera subsp.		Phaseolus vulgaris	Oryza sativa	Glycine max	Oryza sativa	Spinacia oleracea	Triticum aestivum	Spinacia oleracea	Oryza sativa	Triticum aestivum	Populus kitakamiensis	Triticum aestivum	Phaseolus vulgaris	Raphanus sativus
	682 AJ011939	X90695	L36158	X10469	AB024437	L36981	x9063	AJ242742	X90694	U51191	AJ401276	AF244921	X19023	X71593	D11337	U51193	051192	AF145350	L36157	AF014467	AF007211	X66125	222920	X97351		AF149280	AP002482	051194	D16442	X10464	X56011	AF244924	AF014470	X85228	D30653	X85230	AF149277	X91172
	SEQ ID NO. 6 CAA09881.1	CAA62228.1	AAB41812.1	CAA71495.1	•	AAA98491.1	CAA62226.1	CAB94692.1	CAA62227.1	AAD11481.1	CAC21393.1	AAF63024.1	CAB67121.1	CAA50597.1	BAA01950.1	AAD11483.1	AAD11482.1	AAD37376.1	AAB41811.1	AAC49818.1	AAC98519.1	CAA46916.1	CAA80502.1	CAA66037.1	trichocarpa	AAD37430.1	BAA96643.1	AAD11484.1	BAA03911.1	CAA71490.1	CAA39486.1	AAE63027.1	AAC49821.1	CAA59485.1	BAA06335.1	CAA59487.1	AAD37427.1	CAA62597.1

Gossypium hirsutum Papaver somniferum Papaver somniferum Papaver somniferum Glycine max	Zea mays Zea mays Zea mays Zea mays Alopecurus myosuroides Aegilops tauschii Zea mays Zea mays	Alopecurus myosuroides Alopecurus myosuroides Zea mays Glycine max Zea mays Zea mays Glycine max Zea mays Glycine max Zea mays	Zea mays Zea mays Zea mays Glycine max Zea mays Glycine max Zea mays Zea mays	Glycine max Picea mariana Glycine max Zea mays Euphorbia esula Zea mays Zea mays
695 AF159229 AF118924 AF118925 AF118926 AF243360	AF244696 AF244699 AF244687 AF244703 AJ010449 AF004358 AF244707 AF244692	A7010448 AJ010448 AJ010450 AF244702 AF244695 AF244691 AF243374 AF243363	AF244694 AF244706 AF243368 AF244690 AF244698 AF244698 AF244693	AF243367 AF051214 AF243361 AF244700 AF239928 AF244688 AF244697
SEQ ID NO. (ARE29773.1 ARE2517.1 ARE2518.1 ARE2518.1 ARE25519.1 ARE3519.1 ARE34795.1	AAG34839.1 AAG34842.1 AAG34846.1 AAG34846.1 CAAO9188.1 AAD10129.1 AAG34850.1 AAG34835.1	AAG34821 CAA09189.1 CAA09189.1 AAG34845.1 AAG34838.1 AAG34838.1 AAG34809.1 AAG34829.1 AAG34798.1	AAG34849.1 AAG34849.1 AAG34803.1 AAG34801.1 AAG34841.1 AAG34844.1 AAG34836.1	AAG34802.1 AAG32118.1 AAG34796.1 AAG34843.1 AAF64450.1 AAG34831.1 AAG34847.1 AAG34847.1
Solanum melongena Solanum chacoense Medicago sativa Oryza sativa Ipomoea nil Petunia x hybrida	Petunia x hybrida Malus sp. Vitis vinifera Vitis vinifera Medicago truncatula Nicotiana tabacum	Oryza sativa Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Picea abies Oryza sativa Chlorella kessleri Chlorella kessleri Chlorella kessleri	Lycopersicon escurentum Beta vulgaris Lycopersicon esculentum Apium graveolens var. dulce Solanum tuberosum Nicotiana tabacum Zea mays Spinacia oleracea	Oryza sativa Zea mays Zea mays Zea mays Picea abies
X77368 AF104925 X78994 AP002069 D83041 X60512	AF022142 X69664 685 AJ001061 Y09590 U38651 X66856	AB052884 AJ13224 AJ13224 AJ010942 283829 AB052883 X75440 X55349 Y07520	AU132225 AV132225 AV132225 AF215833 AF215852 AF215854 AF215854	686 AF030387 AF045033 AF030385 690 AF147726 U91996
CAA54557.1 AAC95363.1 CAA55628.1 BAA95828.1 BAA21897.1 CAA43027.1		BAB19864.1 BAB19863.1 CAB52689.1 CAA09419.1 CAB06079.1 BAB19862.1 CAA53192.1 CAA53192.1 CAA68813.1	CABSZESS 1. AADSSOS4.1 CABS2690.1 AAG43998.1 AAF74567.1 AAF74566.1 AAF74568.1	SEQ ID NO. AAB86939.1 AAB86937.1 SEQ ID NO. AAF67002.1 AAB51150.1

Nicotiana sylvestris Pisum sativum	na radiata		Zea mays	za sativa	za sativa	za sativa			um sativum				Zea mavs	Zea mavs	Cucurbita pepo		Tortula ruralis		Glycine max	ta	a sativa	a sativa	a sativa	Marchantia polymorpha	Marchantia polymorpha	Marchantia polymorpha	Marchantia polymorpha	sativ	Nicotiana tabacum	Zea mays	Medicago sativa	Zea mays	Glycine max	a sativa	Mesembryanthemum crystallinum	Oryza sativa	Solanum tuberosum	Ipomoea batatas	Zea mays
	•	Spir					•		Pisum	LVCC	•		Zea	Zea	Cucu	Zea	Tort			Vign		Oryza						Oryza		Zea	Medi	Zea	Glyc	Oryza				Tpom	Zea 1
D16247 AF271892	AF156667	X99937	AF079782	AB042644	AB042643	AC084218		701	063298	083707		704	L15390	D87042	090262	D84408	U82087	AJ007366	069173	U08140	AP000615	X81393	AF048691	AB017515	AB017517	AB017516	AB017515	X81394	AF072908	D85039	X96723	U28376	069174	D13436	AF090835	AC073166	AF115406	D87707	L27484
BAA03763.1 AAF75791.1	AAF40306.1	CAA68193.1	AAD20980.1	BAA95705.1	BAA95704.1	AAG48833.1		SEQ ID NO.	AAB62580.1	AAC49665.1		SEQ ID NO.	AAA33443.1	BAA13232.1	AAB49984.1	BAA12338.1	AAB70706.1	CAA07481.1	AAB80692.1	AAC49405.1	BAA85396.1	CAA57156.1	AAC05270.1	BAA81749.1	BAA81751.1	BAA81750.1	BAA81748.1	CAA57157.1	AAC25423.1	BAA12715.1	CAA65500.1	AAA69507.1	AAB80693.1	BAA02698.1	AAD17800.1	AAG46110.1	AAD28192.2	BAA13440.1	AAA61682.1
	Oryza sativa	Oryza sativa			Vigna radiata	Lycopersicon esculentum	Cucurbita maxima	Taxus cuspidata	Hordeum vulgare	Helianthus annuus	Triticum aestivum	Glycine max	Pisum sativum	Mentha spicata	Beta vulgaris	Trifolium repens	Capsicum annuum	Lens culinaris	Glycine max	Glycine max	Vigna radiata	Nepeta racemosa	Vigna radiata	Trifolium repens	Trifolium pratense	Vigna radiata	Mentha x piperita	н	Glycyrrhiza echinata	Glycine max	Vigna radiata	Glycine max	Asparagus officinalis	Asparagus officinalis	Lupinus albus	Cicer arietinum	Lens culinaris		
969	AC022457	AF093630		697	AF279252	U54770	AF212991	AF318211	AF326277	AF216313	AB036772	AF195818	AF195812	AF124815	AF195817	AF195815	AF122821	AF195804	AF135484	AF022464	AF195806	X09423	AF195809	AF195814	AF195811	AF195808	AF124816	AF195810	AB023636	AF195819	AF195807	AF022462	AB037244	AB037245	AF195813	AJ249800	AF195805		200
	AAK27801.1	AAC78102.1			AAF89209.1	AAB17070.1	AAG41777.1	AAK00946.1	AAK11616.1	•	BAB40322.1	AAF45142.1	AAE34533.1	AAD44150.1	AAF34538.1	AAF34536.1	AAF27282.1	AAF34525.1	AAD38929.1	AAB94593.1	AAF34527.1	CAA70575.1	AAE34530.1	AAF34535.1	AAE34532.1	AAF34529.1	AAD44151.1	AAF34531.1	BAA76380.1	AAE45143.1	AAE34528.1	AAB94591.1	BAB40323.1	BAB40324.1	AAE34534.1		AAF34526.1	:	SEQ ID NO.

Malus x domestica Catharanthus roseus Medicago sativa Acetabularia cliftonii	Medicago sativa subsp. x v Chlamydomonas reinhardtii Nicotiana tabacum	Phaseolus Vuigaris Zea mays Vicia faba Nicotiana tabacum	Medicago sativa Acetabularia cliftonii Brassica oleracea Medicago sativa	iva tabacum sativa napus	Malus x domestica Malus x domestica Vicia faba Fagus sylvatica Vicia faba Fagus sylvatica Vicia faba Vicia faba Vicia faba	Medicago sativa subsp. x varia Prunus persica Prunus persica Prunus persica Prunus persica Audum vulgare Zea mays	Zea mays Enteromorpha intestinalis
247076 AJ007332 AJ002485 228627	X80788 AF156101 Z93768	248221 M60215 AB038648	AJ002487 Z28632 X63558 AJ002486	U31773 293770 AJ002488 X57438	247077 247078 AB038787 AJ298828 AB038788 AJ298986 AB038790 AB038790	AF196285 706 AJ012656 AJ012654 AJ012653 AJ012653 AJ01161 X82124	710 AE178976 AE069952
CAA87385.1 CAA07470.1 CAA05491.1 CAA82263.1	CAA56766.1 AAD38856.1 CAB07803.1	CAA88254.1 AAA33545.1 BAA92244.1	CAROS 493.1 CAR 82264.1 CAR 45119.1 CAR 4519.1	AAA74625.1 CAB07805.1 CAA05494.1 CAA40686.1	CAA87386.1 CAA87387.1 BAA92334.1 CAC11128.1 BAA92335.1 CAC09574.1 BAA92337.1 BAA92336.1	AAG29592.1 SEQ ID NO. CAA10104.1 CAA10103.1 CAA10102.1 CAA10101.1 CAA04565.1	SEQ ID NO. AAF17236.1 AAC26856.1
Daucus carota Cucumis sativus Fragaria x ananassa	Dunanteria cercocca Chlanydomonas eugametos Oryza sativa Oryza sativa	Solanum tuberosum Arachis hypogaea Picea mariana	Daucus carota Zea mays Zea mays Zea mays	Zea mays Zea mays Tradescantia virginiana Oryza sativa Lilium longiflorum	Lycopersicon esculentum Vicia faba Fagus sylvatica Hevea brasiliensis Vicia faba Oryza sativa	sativa ithus annuus ana tabacum sativa subsp. sativa subsp. ana tabacum tana tabacum ica napus	Vicia faba Catharanthus roseus Oryza sativa subsp. indica Acetabularia cliftonii
X56599 AY027885 AE035944	AFZ1652/ 249233 AF194413 AF194414	AF030879 Y18055 AF051211	x83869 D84507 S82324 D38452	D84308 AF289237 AF009337 AP001168 U24188	AF203481 705 AB039916 AJ298829 AF107464 AB039917 AF097182	യഗര	AB039918 AJ007333 AF283668 Z26654
	AAF21062.1 CAA89202.1 AAF23900.1 AAF23901.2	AAC78558.1 CAB46228.1 AAC32116.1	CAA58750.1 BAA12691.1 AAB47181.1 BAA22410.1	BAA1292.1 AAG01179.1 AAC24961.1 BAA90814.1		AAA91806.1 CAA81126.1 CAB07806.1 AAD48068.1 AAD22116.1 CAB4506.1 CAB07807.1 CAA49849.1	BAA92699.1 CAA07471.1 AAF86353.1 CAA81395.1

WO 2002/016655		PCT/US2001/026685
Lycopersicon esculentum Solanum tuberosum Lycopersicon esculentum Hordeum vulgare Stylosanthes hamata Hordeum vulgare Stylosanthes hamata Zea mays Sporobolus stapfianus Stylosanthes hamata Brassica juncea	Malus x domestica Malus x domestica Dendrobium grex Madame Thong-In Sorghum bicolor Hevea brasiliensis	Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Glycine max Nicotiana plumbaginifolia Nicotiana plumbaginifolia Capsicum annuum Citrus unshiu Citrus unshiu Helianthus annuus Helianthus annuus
AF347614 AF309643 AF347613 U52867 X82256 X96431 X82255 AF355602 X96761 X82454 AJ223495	718 U78947 U78949 AE198176 AE198174 U49734 T19	723 AJ272523 AJ272526 AJ272525 AJ272524 AJ272524 AJ272522 AF160197 AF124161 AF124162 AF124162 AF124162 AF124162 AF124162 AF124162 AF124162 AF124162 AF308385 AJ308385 AJ308385
AAK27688.1 AAG41419.1 AAK27687.1 AAA97952.1 CAA57711.1 CAA57710.1 AAK35215.1 CAA65536.1 CAA657831.1 CAA657831.1	SEQ ID NO. AAC25922.1 AAD51422.1 AAF13262.1 AAF13260.1 AAB50187.1 SEQ ID NO. AAA91063.1	SEQ ID NO. CAC33000.1 CAC33002.1 CAC33001.1 CAC3299.1 AAD44338.1 SEQ ID NO. AAD18052.1 AAD18052.1 AAD18052.1 AAD18053.1 SEQ ID NO. CAA48155.1 AAF33237.1 BAB18514.1 CAC27383.1
Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Brassica napus Brassica napus	Lactuca sativa Spinacia oleracea Nicotiana tabacum Oryza sativa subsp. indica Lycopersicon esculentum Citrus unshiu Eustoma grandiflorum	
711 AP001633 AP001633 AP001633 AP001633 AP001633 U39289 U39319 AP002899	715 031462 AJ250433 U34817 AF288196 713 U64789 715 AB011796 AF240764	225543 X92178 AF119095 716 AF339732 AB042267 AB042261 AB042261 AB024291 AB042260 AB042260 AB042260 AB042260 AB042269
	SEQ ID NO. AAC50031.1 AAC50031.1 AAF97601.2 SEQ ID NO. AAB39556.1 SEQ ID NO. BAA36554.1	

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Avena sativa Oryza sativa Medicago sativa Medicago sativa Petunia x hybrida Zea mays Ipomoea batatas Triticum aestivum Petroselinum crispum Vigna radiata Zea mays Zea mays Zea mays Zea mays Zea mays Reassica napus Nicotiana tabacum Antirrhinum majus Petroselinum crispum Medicago sativa Lycopersicon esculentum Vigna aconitifolia Lycopersicon esculentum Chenopodium rubrum Allium cepa Medicago sativa Zea mays Petunia x hybrida Oryza sativa Zea mays Petunia x hybrida Oryza sativa Antirrhinum majus Vigna radiata Oryza sativa Dunaliella tertiolecta	Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Chenopodium rubrum
X79993 AJ250311 AF129087 Y13646 AF239819 AF149424 AF079318 Y12785 AF129886 X61387 AF129886 X61387 AF229866 X61387 AF229867 X11526 X97637 X17226 X89400 Z71703 AB008187 V11526 X89400 Z71726 X89400 Z75661 M99497 X17225 X17225 X17226 X89400 Z75661 M99497 X17225 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17225 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M99497 X17226 X89400 Z75661 M60526 X17226 X89400 Z75661 M60526 X89400 Z75661 M60526 X894036 X894	AF289466 AJ297917 AJ297916 AF289465 AJ278885
CAA56314.1 CAC13967.1 AAD28617.1 CAA73997.1 AAG36872.1 AAD37790.1 AAC28850.1 CAA73323.1 AAD30506.1 CAA73290.1 CAA72290.1 CAA72290.1 CAA72290.1 CAA9538.1 CAA962823.1 AAG01534.1 CAA66233.1 AAC41680.1 CAA76701.1 CAA56038.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA76701.1 CAA71242.1 BAA1817.1 AAB41817.1 AAB41817.1 AAB41817.1	AAG01533.1 CAC15504.1 CAC15503.1 AAG01532.1 CAC17703.1
Citrus x paradisi Cucumis melo Lycopersicon esculentum Narcissus pseudonarcissus Tagetes erecta Lycopersicon esculentum Lycopersicon esculentum Daucus carota Tagetes erecta Tagetes erecta Lycopersicon esculentum Dunaliella bardawil Lycopersicon esculentum Mesembryanthemum crystallinum Zea mays Brassica napus Oryza sativa Antirrhinum majus Nicotiana tabacum Pisum sativum Medicago sativa Medicago sativa Allium cepa Lycopersicon esculentum Medicago sativa Medicago sativa Medicago sativa Medicago sativa Medicago sativa Nicotiana tabacum	Medicago sativa Oryza sativa Petroselinum crispum Oryza sativa Oryza sativa
AF152892 237543 M84744 X78814 AF251015 X60441 X67144 U32636 L23424 AB032797 AF158024 AB032797 AF158024 AF305430 U73937 AF234652 M60526 U18365 D64036 X97637 AF289467 AF289467 AF289467 AF289466 X17225 X82270 X70707 AB006033 AJ297916 AB006033 AJ297916 AB006033 AJ297916 AB006033 AJ297916 AB006033 AJ297916 AB006033 AJ297916 AB006033 AJ297916 AB006033	X82268 X82268 X58194 L34206 AF332873 AF216315
	CAA/1242.1 CAA57719.1 CAA41172.1 AAC41680.1 AAK01710.1 AAG40579.1

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Glycine max Lophopyrum elongatum Lophopyrum elongatum Zea mays Pinus sylvestris Glycine max Nicotiana tabacum Glycine max	Daucus carota Oryza sativa Oryza sativa Ipomoea nil Ipomoea nil Nicotiana tabacum Pinus radiata Oryza sativa	Ipomoea purpurea Ipomoea purpurea Hypericum androsaemum Betula pendula Psilotum nudum Ipomoea nil Ipomoea nil Petunia x hybrida Casuarina glauca	Ipomoea batatas Glycine max Ipomoea batatas Vitis vinifera Ipomoea batatas Vitis vinifera Ipomoea purpurea Ipomoea nil Ipomoea nil Ipomoea nil Ipomoea nil Ipomoea batatas Camellia sinensis
AF244888 AF131222 U67422 AJ250467 AF197947 AF302082 AF197946	AF127.530 U93048 AP001800 00069 U77888 U77888 AF142596 AF142596 X91811 X91811	AB004905 AB004905 AB001826 X11022 AB022682 AB027533 AB001818 X14597 AJ132323	AB037388 L03352 AB037391 AB023791 AB015872 AB037392 X75969 AB001827 AB001827 AB027535 AB027534 AB027534
AAF91322.1 AAK11674.1 AAF43496.1 AAB09771.1 CAC20842.1 AAF59906.1 AAF59906.1	AAB61708.1 BAA94516.1 CAB51834.1 AAB3658.1 AAG52994.1 AAF66615.1 SEQ ID NO. AAB80804.1 CAA62921.1 BAA29039.1	BAA36224.1 BAA36224.1 BAA20387.1 AAG30295.1 CAA71904.1 BAA87922.1 BAA87336.1 BAA21787.1 CAA32737.1	BAA90327.1 AAA33951.1 BAA90330.1 BAA31259.1 BAA90331.1 CAA53583.1 BAA21788.1 BAA21788.1 BAA87338.1 BAA87338.1
Antirrhinum majus Chlamydomonas reinhardtii Antirrhinum majus Medicago sativa Medicago sativa Nicotiana tabacum	Nicotiana tabacum Avena fatua Petroselinum crispum Petroselinum crispum Cucumis sativus Nicotiana tabacum Petroselinum crispum Nicotiana tabacum Avena fatua Betula pendula Nicotiana tabacum	Nicotiana tabacum Petroselinum crispum Matricaria chamomilla Prunus avium Petroselinum crispum Petroselinum crispum	Brassica napus Glycine max Oryza sativa Lycopersicon esculentum Glycine max Populus nigra Populus nigra Brassica napus Oryza sativa Glycine max Glycine max Oryza sativa
X97640 AB035141 X97639 X66469 L07042 D61377	AF096299 Z48429 U48831 U58540 L44134 AF096298 U56834 AB020023 Z48431 AJZ79697 AF193770	AF193771 AF121354 AB035271 737 AJ004916 AF012866 AF012867	AY007545 AF249317 AP000367 U28007 AF249318 AB041503 AB041504 AY028699 AB023482 AF244890 AF244890
CAA66236.1 BAB18271.1 CAA66235.1 CAA47099.1 AAB41548.1 BAA09600.1			AAF91336.1 AAF91336.1 BAAF91336.1 AAF91337.1 BAA94509.1 BAA94510.1 AAK21965.1 BAA78764.1 AAF91324.1 AAF91323.1

ลร	S	sa	urantiaca	hybrid cultiv	re	re	garis	re			garis	garis	re	nis	enziesii	re		esculentum 2	esculentum 5		Ŋ		sp. SM9108	acum	S			S	S	ophyllus		osam	garis			compressa		sativa	
Ipomoea batatas	Brassica napus	Brassica napus	Sandersonia aurantiaca	Hemerocallis hybrid cultiv	Hordeum vulgare	Hordeum vulgare	Phaseolus vulgari	Hordeum vulgare	Oryza sativa	Oryza sativa	Phaseolus vulgari	Phaseolus vulgari	Hordeum vulgare	Ricinus communis	Pseudotsuga menziesii	Hordeum vulgare	Vicia sativa	Lycopersicon	Lycopersicon	Ananas comosus	Ananas comosus	Ananas comosus	Phalaenopsis sp.	Nicotiana tabacum	Ananas comosus	Zea mays	Zea mays	Ananas comosus	Ananas comosus	Dianthus caryophyllus	Vicia sativa	Solanum tuberosum	Phaseolus vulgaris			Enteromorpha compressa		Dlastid Orvza	11717
742 AE242372	AF089849	AF089848	AF133839	U12637	297023	297021	299952	094591	X80876	AB004648	052970	AJ224766	U19384	AF050756	041902	019359	234895	AJ003137	AF172856	D38533	D38532	D38531	034747	299173	AJ009829	AF019147	AB020961	AJ009830	AJ002477	017135	X75749	AJ245924	299954		743	AB045113		746 x15901	* > > > > > > > > > > > > > > > > > > >
SEQ ID NO. AAK27968.1	AAD53012.1	AAD53011.1	AAD28477.1	AAC35211.1	CAB09699.1	CAB09697.1	CAB17074.1	AAD10337.1	CAA56844.1	BAA83472.1	AAB68374.1	CAA12118.1	AAA85036.1	AAC62396.1	AAC49455.1	AAA85035.1	CAA84378.1	CAA05894.1	AAD48496.1	BAA22545.1	BAA22544.1	BAA22543.1	AAB37233.1	CAB16317.1	CAA08860.1	AAB88263.1	BAA88898.1	CAA08861.1	CAA05487.1	AAA79915.1	CAA53377.1	CAB53515.1	CAB17076.1		SEQ ID NO.	BAA96853.1		SEQ ID NO.	C. E. C.
Ipomoea batatas	Vitis vinifera	Callistephus chinensis	Ipomoea batatas	Petunia x hybrida	Catharanthus roseus	Petunia x hybrida		Glycine max	Glycine max	Glycine max	Glycine max	Ipomoea batatas	Solanum tuberosum			Solanum tuberosum	Lycopersicon esculentum	Solanum berthaultii	Orvza sativa	Spinacia oleracea	Mesembryanthemum crystallinum	Pisum sativum	Mesembryanthemum crystallinum			Spinacia oleracea	Nicotiana tabacum	•~~	Oryza sativa	Chlamydomonas reinhardtii	Sorahum bicolor	Glycine max	Lycopersicon esculentum	Sorghum bicolor	Oryza sativa	Lycopersicon esculentum	Salvia columbariae	Lycopersicon esculentum	
AB037393	AE020709	267988	AB037390	S80857	AJ131813	X14591	AF292367	X54644	X65636	X53958	1.07647	AB037680	1147738)	740	06606X	AF143505	X97980	AP002481	Z30332	230333	M92989	Z30331	Z30329	AP002816		X71057	AF132743	AB011968	AF199021	Y12465	M67449	AF203481	Y12464	AB011967	U89682	AF089102	089679	
BAA90332.1	AAB72091.1	CAA91930.1	•	AAB36038.1	CAA10511.1	CAA32731.1	AAK15174.1	CAA38456.1	Ca46590.1	Caa37909.1	L 90010H44	RADGO 1	1 95550Hur	*	ON OT OBS		DDF66637 1	Cab66616 1	E4406659 1	CAA82993.1	CAA82994.1	AAA50304.1	CAA82992.1	CAB82852.1	BAB03409.1	CAA82991.1	CDD50374 1	AAD37166.1	BAA83689.1	AAF97501.1	L 89057447	1 2000 1 1 1 2 1 2 1 2 1	APE19403 1	CAA73067.1	BAA83688.1	AAB93863.1	AAD50588.1	AAB93860.1	

SEQ ID NO. 748	Dischid Orwa sativa	CAA65749.1 AAF66242.1 AAD10251.1	X97022 AF243180 AF031195	Brassica oleracea Lycopersicon esculentum Triticum aestivum
	riascia oryka	CAA80963.1	Z25471	Pisum sativum
SEQ ID NO. 749		AAC32448.1	U76296	Spinacia oleracea
AAD13389.1 AF088912	12 Petunia x hybrida	CAA10134.1	AJ012693	Cicer arietinum
AAC32144.1 AF051244	44 Picea mariana	AAF66243.1	AF243181	Lycopersicon esculentum
AAC32112.1 AF051207	07 Picea mariana	CAB65280.1	AJ248323	Medicago sativa subsp. x v
	Tortula	AAC64163.1	AF093537	Zea mays
·	Quercus su			
CAA70083.1 Y08859	Nicotiana plumbaginifolia		757	
AAA86368.1 U21746	Brassica n	AAA92677.1	U13736	Pisum sativum
	•	CAA66159.1	X97558	Capsicum annuum
SEO ID NO. 750		CAA09302.1	AJ010645	Capsicum annuum
	29 Zea mays	AAA34144.1	M67472	Lycopersicon esculentum
		CAA62150.1	X90560	Physcomitrella patens
	14	AAB46588.1	083402	Capsicum annuum
		BAA87825.1	AP000815	Oryza sativa
SEQ ID NO. 751		AAF65511.1	AF108889	Capsicum annuum
AAA86952.1 U10046	Pisum sativum	AAA85157.1	U20297	Solanum tuberosum
AAA86950.1 U10044	Pisum sativum	AAA85156.1	020296	Solanum tuberosum 9
CAA50035.1 X70702	Pisum sativum	AAA62351.1	U20295	Solanum tuberosum
AAA86951.1 U10045	Pisum sativum	AAA85155.1	U20294	Solanum tuberosum
BAA96367.1 AB04397	75 Panax ginseng	AAA33900.1	1.18914	Oryza sativa
CAB57298.1 Z30162		CAA78288.1	Z12828	Oryza sativa
	Pyrobotrys stellata	AAC49583.1	U48692	Triticum aestivum
AAA86949.1 U10043	Pisum sativ	AAC49582.1	U48691	Triticum aestivum
		CAA61980.1	06868X	Bidens pilosa
SEQ ID NO. 752		CAA67054.1	X98404	Capsicum annuum
	Prunus armeniaca	AAA33083.1	M20729	Chlamydomonas reinhardtii
AAC84136.1 AF10142	23 Cichorium intybus	AAG11418.1	AF292108	Prunus avium
CAA64626.1 X95314	Chlamydomonas reinhardtii	AAF33852.1	AF231026	Oryza sativa
	•	AAA92681.1	U13882	Pisum sativum
SEQ ID NO. 753		AAA33706.1	M80836	Petunia x hybrida
AAA57159.1 L27107	Nicotiana tabacum	AAA33705.1	M80831	Petunia x hybrida
	Pisum sativum	AAA98933.1	U37936	Oryza sativa
		CAA43143.1	X60738	Malus x domestica
SEQ ID NO. 754		CAA78301.1	Z12839	Lilium longiflorum
BAB21002.1 AB054123	23 Oryza sativa	CAA42423.1	X59751	Daucus carota
		AAE73157.1	AF150059	Brassica napus
SEQ ID NO. 756		AAA19571.1	010150	Brassica napus

Zea mays Hordeum vulgare Vicia faba Secale cereale Secale cereale Plantago major Nicotiana tabacum	Pisum sativum Lotus japonicus Glycine max Pisum sativum Gossypium hirsutum Lotus japonicus Gossypium hirsutum Mesembryanthemum crystallium Glycine max Pisum sativum	Lotus japonicus Pisum sativum Zea mays Oryza sativa Oryza sativa Glycine max Lotus japonicus Beta vulgaris Lotus japonicus Pisum sativum Oryza sativum Oryza sativum Oryza sativum Oryza sativum Oryza sativum Pisum sativum Oryza sativa Lotus japonicus Pisum sativum Oryza sativa Lotus japonicus Pisum sativum Oryza sativa Lotus japonicus
Y09747 Y09748 Y09749 Y09752 Y09753 Y09750 AF079871	772 AF145976 774 273955 X77301 D12540 AF165095 273958 AF165096 U87143 X77302 D12546	D12546 Z73953 D12545 D31905 D131905 D13758 Z73952 Z73949 D12544 D13152 Z73951 Z73956 Z73956 Z73956 Z73956
CAA70894.1 CAA70895.1 CAA70896.1 CAA70990.1 CAA70897.1 AAF33669.1	SEQ ID NO. SEQ ID NO. CAA98183.1 CAA54506.1 BAA02108.1 AAD48018.1 CAA98186.1 AAD48019.1 AAD48019.1 AAD47558.1 CAA54507.1 BAA02114.1	CAA98181.1 BAA02113.1 BAA06701.1 BAA02904.1 AAB97114.1 CAA98180.1 CAA9817.1 CAA9817.1 BAA02112.1 BAA02112.1 BAA02111.1 CAA98184.1 CAA98184.1 CAA5865.1 BAA02109.1
Panicum miliaceum Daucus carota Panicum miliaceum Medicago sativa Medicago sativa Lupinus angustifolius Lupinus angustifolius Cupinus angustifolius	Glycine max Glycine max Glycine max Medicago sativa Glycine max Chloroplast Glycine max Lotus corniculatus Lupinus angustifolius Panicum miliaceum Canavalia lineata Plastid Canavalia lineata Oryza sativa	Daucus carota Zea mays Lycopersicon esculentum Solanum tuberosum Triticum aestivum Zea mays Samanea saman Vicia faba Populus tremula x Populus Oryza sativa Oryza sativa Seria densa Samanea saman Samanea saman Populus tremula x Populus Mesembryanthemum crystallinum
X63429 M92660 D25322 X61577 L25334 M92094 L23875 D14673	AF034210 AF034210 L25335 L09702 S60967 AF029898 X59761 D45076 U89494 AJ001360 D67042	AJ249962 X96390 X79779 AF207745 AJ132686 AF099095 Y10579 AJ271447 AP002093 AP0226805 AP0226805 AF145272 AJ229019 AJ229019
CRA45023.1 AAA33134.1 BAA04992.1 CAA43779.1 AAB46610.1 AAA33408.1 AAA50160.1 BAA03504.1		

BAA84640.1	AB007911	Pisum sativum	BAA09645.1	D63331	
T 8718847	273950	Lotus japonicus	BAA11770.1	D83078	Nicotiana tabacum
BAA06702 1	031906	1 8 2	BAA77679.1	AB027054	Oryza sativa
CAA67153.1	X98540	Fagus sylvatica			
CA19947	273954	Lotus japonicus		778	
DD 34253 1	1,08130	Volvox carteri	CAA62261.1	X90727	Brassica napus
1 3525 CHAN	566160	Orvza sativa	AAF80463.1	AF162283	Glycine max
1.0000000v	1158854		AAB67836.1	U40666	Glycine max
1.017444	135845	Oryza satitya	AAG44776.1	AF271796	Glycine max
AAAAAAA	7.000		AAG44765.1	AF271071	Chloroplast Glycine max
. ON UI OBS	775		CAA62265.1	X90731	Brassica napus
	x67733	Syem eas	CAA62264.1	x90730	Brassica napus
1 30775344	AE172282	Orvza sativa	CAA62266.1	X90732	Brassica napus
1 61370440	30371214 0001800	Sativ	CAA62263.1	X90729	Brassica napus
1.7104646	APO01800	sativ	CAA62262.1	X90728	Brassica napus
1.010.5444	1,27821				
7.01.01.01.44	00010004	aptit	SEO ID NO. 7	179	
5.6269456 5.626644	AF001600		CAA47056.1	X66428	Hordeum vulgare
BAA92954.I	AFOOLDSI	ממרדי	AAC26197.1	AF052429	Zea mavs
BAA92953.1	APOULSSI	Sacr	1. /CC20244	3075053N	5 interdible returned in
AAC27489.1	AE077130	Oryza sativa	AAKUD//4.1	AE 323 / 23	Cilianiyaciida reliinaracii. L
AAC02535.1	AF044260	Oryza sativa	AADSSS63.1	AETTO/81	VOLVOX CATUELL 1: MAGALLEMENS
AAF78021.1	AF238477	Oryza sativa		,	
AAD46916.1	AF164020			781	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
AAF68398.1	AF237568	Oryza sativa	BAA25753.1	AB012932	Vigna radiata
AAD46420.1	AF100771	Hordeum vulgare	BAA75232.1	AB018526	Ipomoea nii
AAC49629.1	U51330	Triticum aestivum			
AAC01746.1	AF044489	Oryza sativa		783	
BAB39437.1	AP003338	Oryza sativa	AAD11482.1	051192	Glycine max
PBF78019.1	AF238475		AAD11481.1	051191	
AAF78044.1	AF248493		AAA65636.1	L13653	
AAF78018.1	AF238474	Orvza sativa	AAA65637.1	L13654	Lycopersicon esculentum
1 7169744	AF164021		CAA76374.2	X16776	Spinacia oleracea
1 71080344	DF238472		BAA03644.1	D14997	Oryza sativa
ביניטבוטיותית	A 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hordenm vulgare	CAA80502.1	ZZ2920	Spirodela polyrrhiza
ו האסוכאהה	007600 TV	Brassica nanus	BAA07664.1	D42065	Nicotiana tabacum
1.0057044	`	Trition aestivum	BAA07663.1	D42064	Nicotiana tabacum
1.70/05/05/			AAF63024.1	AF244921	Spinacia oleracea
ON OT OHS	776		BAA77387.1	AB024437	Scutellaria baicalensis
	071244	Brassica rapa	AAA32676.1	M37637	Arachis hypogaea
			CAC21393.1	AJ401276	
SEQ ID NO.	777		CAA64413.1	X94943	Lycopersicon esculentum

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Brassica nigra Rauvolfia serpentina Costus speciosus Prunus serotina Prunus avium Manihot esculenta	Dalbergia cochinchinensis Catharanthus roseus Polygonum tinctorium Cucurbita pepo Pinus contorta Manihot esculenta Zea mays Zea mays Zea mays Zea mays Zea mays Zea mays Trifolium repens Avena sativa Trifolium repens	Trifolium repens Sorghum bicolor Avena sativa Secale cereale Musa acuminata Hordeum vulgare Brassica napus Cicer arietinum Oryza sativa Zea mays Zea mays Cucurbita pepo Zea mays Tortula ruralis Glycine max Vigna radiata Marchantia polymorpha	
U72154 AF149311 D83177 AF221526 U39228 X94986 S35175	AF163097 AF112888 AB003089 AF170087 AF072736 U95298 U44087 X74217 U33816 U25157 U44773 X56733 AF082991	A56/34 U33817 X78433 AF293849 AF293849 A521287 L41869 221977 AJ005950 U28047 U8047 U8087 U90262 AJ007366 U82087 U69173 U69173 U69173 AB017515)
AAE38784.1 AAE03675.1 BAA11831.1 AAE34650.1 AAA91166.1 CAA64442.1 AAB22162.1	AAF04007.1 AAF28800.1 BAA78708.1 AAG25897.1 AAC69619.1 AAB71381.1 AAB09850.1 CAA52293.1 AAB03266.1 AAB03266.1 CAA40057.1 AAD02839.1		
Glycine max Glycine max Stylosanthes humilis Medicago sativa Phaseolus vulgaris Nicotiana tabacum Glycine max	Ipomoea batatas Phaseolus vulgaris Phaseolus vulgaris Oryza sativa Spinacia oleracea Lycopersicon esculentum Lycopersicon esculentum Glycine max Spinacia oleracea Zea mays Medicago sativa Glycine max Spinacia oleracea Aedicago sativa Glycine max Spinacia oleracea	Medicago sativa Asparagus officinalis Populus balsamifera subsp. Vigna angularis Raphanus sativus Oryza sativa Oryza sativa Oryza sativa Trifolium repens Lycopersicon esculentum Oryza sativa Potamogeton crispus Brassica napus	1
U51193 U51194 L77080 X90693 AF149279 AB027753 AF145349	AC14274 AF149277 AF149280 AF001383 Y10466 Y19023 X71593 AF014502 Y10468 AJ401274 L36157 AF007211 AF244924	78-7 78-5 78-5 78-5 78-5 78-5 78-5 78-5	
AAD11484.1 AAD11484.1 AAB67737.1 CAA62226.1 AAD37429.2 BAA82307.1 AAD37375.1	CABS4052.1 AAD37427.1 AAD37427.1 BAA92500.1 CAA71492.1 CAB67121.1 CAB67121.1 CAB67121.1 CAA897734.1 CAA897734.1 CAA897734.1 CAA81811.1 AAC98519.1 AAF63027.1	10	

BAA81748.1	AB017515	Marchantia polymorpha	AAF33823.1	AF223351	Nicotiana tabacum
•	X81393	Orvza sativa	CAA63893.1	X94183	Solanum tuberosum
	AP000615	Oryza sativa	AAB03258.1	U41474	Glycine max
AAC05270.1	AF048691	Oryza sativa	AAA74441.1	025027	Glycine max
AAA61682.1	L27484	Zea mays	CAA65127.1	X95877	Nicotiana rustica
AAC25423.1	AE072908	Nicotiana tabacum	CAA72681.1	X11931	Nicotiana rustica
AAG46110.1	AC073166	Oryza sativa	CNA63777.1	X93564	Solanum tuberosum
BAA02698.1	D13436	Oryza sativa	AAD26119.1	AF108123	Brassica napus
BAA13440.1	D87707	Ipomoea batatas	AAB03259.1	041475	Glycine max
AAB80693.1	U69174	Glycine max	AAB03257.1	041473	Glycine max
AAD17800.1	AF090835	Mesembryanthemum crystallinum	AAB41107.1	U85250	Vigna unguiculata
CAA65500.1	X96723	Medicago sativa	CAC13988.1	AJ291467	Digitaria sanguinalis
CAA57157.1		Oryza sativa	AAK01711.1	AE332874	Oryza sativa
CAA39936.1	X56599	Daucus carota			
BAA12715.1		Zea mays		788	
AAA69507.1	U28376	Zea mays	AAF34428.1	AF172282	Oryza sativa
AAD28192.2		Solanum tuberosum	BAA94516.1	AP001800	Oryza sativa
AAK26164.1	AY027885	Cucumis sativus	BAA94517.1	AP001800	Oryza sativa
AAF21062.1		Dunaliella tertiolecta	AAC23542.1	U20948	Ipomoea trifida
AAB88537.1		Fragaria x ananassa	BAA94529.2	AP001800	Oryza sativa
CAA89202.1	249233	Chlamydomonas eugametos	AAA33915.1	L27821	Oryza sativa
AAF23900.1	AF194413	Oryza sativa	CAA73133.1	X12530	Brassica oleracea
AAF23901.2	AF194414	Oryza sativa	CAA67145.1	X98520	Brassica oleracea
AAC78558.1	AE030879	Solanum tuberosum	BAA23676.1	AB000970	Brassica rapa
AAC32116.1	AF051211	Picea mariana	AAA33008.1	M97667	Brassica napus
CAB46228.1	X18055	Arachis hypogaea	CAB89179.1	AJ245479	Brassica napus subsp. napus
CAA58750.1	X83869	Daucus carota	BAA92836.1	AB032473	Brassica oleracea
AAB47181.1	S82324	Zea mays	BAA07576.1	D38563	Brassica rapa
BAA12691.1	D84507	Zea mays	BAA92837.1	AB032474	Brassica oleracea
BAA22410.1	D38452	Zea mays	BAA07577.2	D38564	Brassica rapa
BAA12692.1	D84508	Zea mays	AAA33000.1	M76647	Brassica oleracea
AAG01179.1	AF289237	Zea mays	BAA92954.1	AP001551	Oryza sativa
AAC24961.1	AF009337	Tradescantia virginiana	BAA06285.1	030049	Brassica rapa
BAA90814.1	AP001168	Oryza sativa	BAA21132.1	D88193	Brassica rapa
AAC49008.1	U24188	Lilium longiflorum	AAA62232.1	000443	Brassica napus
AAF21450.1	038446	Nicotiana tabacum	CAA47962.1	X67733	Zea mays
			CAA79355.1	218921	Brassica oleracea
	787		BAB21001.1	AB054061	Brassica rapa
CAA63954.1	X94289	Solanum tuberosum	CAB41879.1	X18260	Brassica oleracea
AAE33824.1	AF223573	Nicotiana tabacum	AAD46420.1	AF100771	Hordeum vulgare

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Picea mariana Lycopersicon esculentum Pisum sativum Oryza sativa	Lycopersicon esculentum Adiantum capillus-veneri Zea mays Glycine max Glycine max Glycine max Logulus tremuloides Glycine max Lolium perenne	Lithospermum erythrorhizon Capsicum annuum Rubus Idaeus Lolium perenne	Petroselinum crispum Petroselinum crispum Lolium perenne Populus tremuloides Rubus idaeus Populus x generosa Populus x generosa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Solanum tuberosum Rubus idaeus Solanum tuberosum Pinus taeda	Oryza sativa Picea smithiana Pinus armandii Pinus armandii
AF051225 AJ243455 U52520 X82035 AJ011108	A7243452 D82349 U10077 D50869 D50870 790 AE041050 X69955 AF052221	D49367 AF212317 AF239685 AF05222	X13325 X13324 AF052223 AF041049 AF239686 AF008184 AF008183 U50845 U50846 D43773 M62755 AF150686 U39405 U39405 U12013 U12012	X52623 AF144504 AF144502 AF144501
AAC32126.1 CAB46645.1 AAD11475.2 CAA57555.1 CAB60839.1		BAA08366.2 AAG43823.1 AAE91308.1 AAE37733.1	CAA31697.1 CAA31696.1 AAF37734.1 AAC24503.1 AAC39366.1 AAC39365.1 AAB18637.1 AAB18637.1 AAB18637.1 AAB18637.1 AAB18637.1 AAB18638.1 AAB13842.1 AAB42383.1 AAB42383.1 AAB42383.1 AAB42383.1 AAB42383.1 AAB42382.1 AAB42382.1 AAB42383.1 AAB42383.1 AAB42383.1	CAA36850.1 AAF73997.2 AAF73995.2 AAF73994.2
Oryza sativa Oryza sativa Oryza sativa Oryza sativa subsp. japonica	ळ न भ द	Lupinus luteus Lupinus luteus Nicotiana tabacum Chenopodium rubrum	Antirrhinum majus Petunia x hybrida Petroselinum crispum Nicotiana tabacum Glycine max Glycine max Lupinus luteus Lupinus luteus Lycopersicon esculentum Glycine max Zea mays	Oryza sativa Zea mays Medicago sativa Medicago sativa
AP001551 AP003338 AF238475 AF230507	789 275660 X62820 X76122 U24194 AF287306 AF126107 D86386 U24193 AF126106	044857 AF126108 D89635 Y10161	X76123 AJ250315 L34207 Z37978 Z26331 U24192 AF126105 AJ243454 X62303 U10079 U10079 U10079 U106608 U66608 U66608	X82036 U10076 X78504 X68741
BAB39437.1 BAB39437.1 AAF78019.1 AAF43400.1		AAC24245.1 AAD31791.1 BAA20425.1 CAA71243.1	CAA53729.1 CAB58998.1 AAC41681.1 CAB81558.1 CAA81232.1 BAAC24244.1 AAC24244.1 AAD31788.1 CAA44188.1 AAA20239.1 AAA20239.1 AAA20239.1 AAA20239.1 AAA20239.1 AAA20239.1 AAA20239.1 AAA20239.1 AAB72020.1 BAAB72020.1 BAAB72020.1	CAA57556.1 AAA20236.1 CAA55272.1 CAA48675.1

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Lycopersicon esculentum Picea abies Oryza sativa Oryza sativa Beta vulgaris Lycopersicon esculentum Lycopersicon esculentum	Sinapis alba Sinapis alba Daucus carota Ipomoea nil Oryza sativa Pinus sylvestris Ipomoea nil Brassica napus Oryza sativa	Glycine max Glycine max Oryza sativa Malus x domestica Oryza sativa Phaseolus vulgaris Oryza sativa Phaseolus vulgaris Ipomoea nil Oryza sativa Brassica napus Populus nigra Populus nigra Populus nigra Oryza sativa Coryza sativa Oryza sativa Oryza sativa Oryza sativa
AJ010942 283829 AB052883 AP000615 AF173655 AJ132223	X84208 X16190 799 U93048 U77888 AP000559 AJ250467 U77888 AY028699 X89226	AF197947 AF197946 AC073405 AC073405 AF053127 L27821 AF285172 AF172282 AF078082 U77888 AB041503 AB041503 AB041504 AF172282 AP001800 U72725 U82481
CAA09419.1 CAB06079.1 BAB19862.1 BAA85398.1 AAD55054.1 CAB52688.1	SEQ ID NO. CAA58994.1 CAA76116.1 SEQ ID NO. AAB61708.1 AAG52992.1 BAA84787.1 CAC20842.1 AAB36558.1 AAK21965.1 CAA61510.1	AAF59906.1 AAG03090.1 AAG3318.1 AAA33915.1 AAG00510.1 AAG52994.1 BAA92954.1 BAA92954.1 BAA94509.1 BAA94509.1 BAA94509.1 BAA94509.1 BAA94529.2 AAB93834.1
Cathaya argyrophylla Solanum tuberosum Pinus armandii Glycine max Pseudotsuga sinensis Nothotsuga longibracteata Pseudotsuga menziesii	Tsuga canade Tsuga canade Tsuga canade Pseudotsuga Cedrus atlar Pinus banksi Pinus banksi Pinus banksi Abies firma Sorghum bicc Juglans nigr	Glycine max Apium graveolens var. dulce Nicotiana tabacum Medicago truncatula Oryza sativa Chlorella kessleri Spinacia oleracea Chlorella kessleri Vitis vinifera Vicia faba Chlorella kessleri Solanum tuberosum Nicotiana tabacum Zea mays Ricinus communis Oryza sativa Iycopersicon esculentum Vitis vinifera
AF144505 AF150687 AF144503 X69954 AF144511 AF144523 AF144508	AF144509 AF144526 AF144510 AF144506 AF144500 AF144450 AF144514 U23787 AJ278455 AF144514	791 U31097 795 AF215837 X66856 U38651 AB052885 X75440 AF215851 X07520 AJ01061 Z93775 X55349 AF215853 AF215853 AF215854 L08196 AB052884 AJ132224 X09590
AAF73998.2 AAD40665.1 AAF73996.2 CAA49575.1 AAF74004.2 AAF74016.2		SEQ ID NO. AAB09756.1 SEQ ID NO. AAG43998.1 CAA47324.1 BAB19864.1 CAA53192.1 AAF74565.1 CAA68813.1 CAA79761.1 BAB19863.1 CAA70777.1

AAC19381.1	AF068844	Prunus persica	BAA20365.1	AB004307	
SEQ ID NO.	801		BAA0/4/9.1	D38445	Oryza sativa Orvza sativa
CAB38030.1	AJ010201	Glycine max	BAA04232.1	D17410	
AAC19381.1	AF068844	Prunus persica	BAA90642.1	AP001129	
	· ····-		BAA85425.1	AP000616	Oryza sativa
SEQ ID NO.	802		BAA04616.1	D17790	Oryza sativa
CAA70968.1	Y09825	Solanum tuberosum	AAB40034.1	010418	Zea mays
AAD16013.1	AF080542	Nepenthes alata	CAA67796,1	X99419	Pisum sativum
CAA07563.1	AJ007574	Ricinus communis	AAK09367.1	AF321525	Pisum sativum
CAA10608.1	AJ132228	Ricinus communis	AAK09370.1	AF321528	Pisum sativum
CAA70778.1	X09591	Vicia faba	AAK09369.1	AF321527	Pisum sativum
CAA70969.1	X09826	Solanum tuberosum	AAK09368.1	AF321526	Pisum sativum
AAD16014.1	AF080543	Nepenthes alata			
CAA72006.1	X11121	Ricinus communis	SEQ ID NO.	804 · ·	
AAD16015.1	AF080544	Nepenthes alata	BAA82107.1	AB022693	Nicotiana tabacum
AAF15944.1	AF061434	Vicia faba	AAC31956.1	AF080595	Pimpinella brachycarpa
CAA92992.1	268759	Ricinus communis	AAC49527.1	U48831	Petroselinum crispum
AAF15945.1	AF061435	Vicia faba	AAD55974.1	AF121353	Petroselinum crispum
AAF15946.1	AF061436	Vicia faba	BAA77383.1	AB020590	
AAB96830.1	U64823	Nicotiana sylvestris	CAA88326.1	248429	Avena fatua
AAB48944.1	U31932	Nicotiana sylvestris	BAA86031.1	AB026890	Nicotiana tabacum
BAA93437.1	AB022783	Oryza sativa	AAD16139.1	AF096299	Nicotiana tabacum
CAB42599.1	AJ238635	Chlorella protothecoides	AAC37515.1	I,44134	Cucumis sativus
			AAF23698.1	AF193802	Oryza sativa
	803		AAC49529.1	U58540	Petroselinum crispum
CAA81210.1	226251	Helianthus tuberosus	AAD16138.1	AF096298	Nicotiana tabacum
AAB02721.1	058629	Helianthus tuberosus	AAC49528.1	U56834	Petroselinum crispum
CAC27143.1	AJ132538	Picea abíes	BAB16432.1	AB041520	Nicotiana tabacum
AAA79131.1	010545	Chlamydomonas reinhardtii	BAA77358.1	AB020023	Nicotiana tabacum
CAA55406.1	X78851	Chlamydomonas reinhardtii	CAA88331.1	248431	Avena fatua
AAB40978.1	U22328	Volvox carteri	AAG35658.1	AF204925	Petroselinum crispum
AAA33029.1	M25528	Mesembryanthemum crystallinum	AAD27591.1	AF121354	Petroselinum crispum
CAA30978.1	X12446	Pisum sativum	AAG35659.1	AF204926	Petroselinum crispum
BAA1341/.1	D87547	Oryza sativa	CAB66338.1	AJ279697	Betula pendula
AAA21758.1	014956.	Vicia faba	AAF61864.1	AF193771	Nicotiana tabacum
AAA34029.1	M86349	Spinacia oleracea	AAF61863.1	AF193770	Nicotiana tabacum
CAB71293.1	AJ250378	Capsicum annuum			
CAA74359.1	Y14032 '	Nicotiana tabacum	SEQ ID NO. 8	908	
BAA88236.1	AB035644.	Zea mays	CAB52689.1	AJ1:32224	Lycopersicon esculentum
BAA88237.1	AB035645	Zea mays	CAA09419.1	AJ010942	Lycopersicon esculentum

Solanum chacoense Spinacia oleracea Picea abies Mesembryanthemum crystalli Brassica oleracea Raphanus sativus Brassica rapa Raphanus sativus Vicia faba Mesembryanthemum crystalli Raphanus sativus Saphanus sativus Vicia faba Mesembryanthemum crystalli Raphanus carivus Brassica napus Brassica oleracea Daucus carota	ഗ	Brassica rapa Brassica napus subsp. napus Brassica napus Brassica oleracea Brassica oleracea Nicotiana tabacum Lycopersicon esculentum Lycopersicon hirsutum Brassica oleracea Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Brassica napus Catharanthus roseus Brassica oleracea
AF290201 L77969 293764 U26538 AF299050 AB030695 AF299051 AF004293 AB030696 AJ289701 U26537 AB012044 AY028699 AY028699 AY028699 AY028699 AY028699 AY028699 AY028699 AY028699	AF078082 Y18259 U00443 M76647 Y18260 Y12531	D88193 AJ245479 M97667 X98520 Y12530 AF142596 AF220603 AF318492 Y14286 U59317 U59318 AF220602 D38563 AY007545 Z73295
	AAD21872.1 CAB41878.1 AAA62232.1 AAA33000.1 CAB41879.1 CAA73134.1 BAA06285.1	BAA21132.1 CAB89179.1 AAA33008.1 CAA73133.1 AAFF66615.1 AAFT76314.1 AAB4742.1 AAB4742.1 AAB4742.1 AAB4742.1 AAB476307.1 BAA07576.1 CAA97692.1 CAA97692.1
Picea abies Oryza sativa Nicotiana tabacum Ricinus communis Ricinus communis Ricinus communis Vitis vinifera Medicago truncatula Vitis vinifera Oryza sativa Oryza sativa Chlorella kessleri Chlorella kessleri Chlorella kessleri Chlorella kessleri Chlorella kessleri Chlorella kessleri Beta vulgaris Apium graveolens var. dulce	Spinacia oleracea Zea mays Solanum tuberosum Nicotiana tabacum Phaseolus vulgaris Betula pendula	Samanea saman Mesembryanthemum crystallinum Raphanus sativus Raphanus sativus Raphanus sativus Raphanus sativus Mesembryanthemum crystallinum Oryza sativa Allium cepa Beta vulgaris Solanum tuberosum Picea mariana Beta vulgaris Atriplex canescens Brassica oleracea Mesembryanthemum crystallinum
Z83829 AB052885 X66856 L08188 L08196 AJ001061 V09590 AB052884 AP000399 X75440 Y07520 X55349 AB052883 AJ132225 AJ132223 AF173655	AF215851 AF215854 AF215853 AF215852 AF149282 AF168773	807 AF067185 U73466 AB0130697 AB012045 AB030698 AF133530 AF062393 AF255795 U60147 Y18312 AF051202 U60148 U18403 AF314656
CABO6079.1 BAB19864.1 CAA47324.1 AAA79857.1 AAA79761.1 CAAA4511.1 AAB06594.1 CAA70777.1 BAB19863.1 CAA68813.1 CAA39036.1 CAB52688.1 AAD55054.1	AAF74565.1 AAF74568.1 AAF74567.1 AAD37424.1 AAD45934.1	SEQ ID NO. 8 AAC17529.1 BAAB18227.1 BAA32778.1 BAA32778.1 BAA32778.1 AAD31846.1 AAC16545.1 AAE65845.1 AAE67869.1 AAB67869.1 AAB67869.1 AAB67869.1

CAA61198.1 X87946 Oryza sativa CAA41169.1 X58180 Medicago sativa BAA00887.1 D10003 Pisum sativun	D10002 Pisum sati	M91192 Trifolium	L11747 Populus			CAB42793.1 AJ238753 Citrus clementina x Citrus		AAA99500.1 L36822 Stylosanthes humilis	CAA55075.1 X78269 Nicotiana tabacum	BAA22963.1 D17467 Nicotiana tabacum	BAA22947.1 AB008199 Nicotiana tabacum	CAA57057.1 X81159 Petroselinum crispum	AAG49585.1 AF325496 Ipomoea nil	X81158	CAB42794.1 AJ238754 Citrus clementina x Citrus	reticulata	CAA05251.1 AJ002221 Digitalis lanata 5	BAA07860.1 D43802 Populus kitakamiensis 🏵	CAB60719.1 AJ250836 Cicer arietinum	CAA68256.1 X99997 Bromheadia finlaysoniana			AAF40223.1 AF237954 Rubus idaeus		D30657	AF165998					BAA07861.1 D43803 Populus kitakamiensis		SEQ ID NO. 814		AAA19701.1 L24438 Thlaspi arvense		M32885	DADA0304 1 ADA03004E ADA030000 CEE: cixolia
Zea mays Brassica oleracea Orvza sativa			Musa acuminata	Musa acuminata	Vitis vinifera	Zinnia elegans.	Musa acuminata	Fragaria x ananassa	Medicago sativa	Nicotiana tabacum		Nicotiana tabacum				Poa secunda	Hordeum vulgare	Zea mays	Hordeum vulgare			Nicotiana tabacum	Nicotiana tabacum	Lycopersicon esculentum	Rubus idaeus	Glycine max /	Triticum aestivum	Ipomoea batatas	Lycopersicon esculentum	Populus kitakamiensis	Citrus limon	Catharanthus roseus	Camellia sinensis	Helianthus annuus	Lithospermum erythrorhizon	Lithospermum erythrorhizon	Pisum sativum	Pinus taeda
U82481 AB032474 127821	1	809	AF206320	AF206319	AF243475	.Y09541	X92943	U63550	041472	X61102	X67158	x61101	x67159		810	AF264022	X62724	AF034948	X62725		813	· M84466	AB008200	M90692	AF237955	X52953	X99705	M29232	M83314	D30656	U43338	AB042520	D26596	X12461	D83076	D83075	D10001	U39792
AAB93834.1 BAA92837.1 AAA33915.1			AAF19196.1	AAF19195.1	AAF63756.1	CAA70735.1	CAA63496.1	AAB71208.1	AAA86241.1	CAA43414.1	CAA47630.1	CAA43413.1	CAA47631.1		SEQ ID NO.	AAG49551.1	CAA44598.1	AAB88619.1	CAA44599.1		SEQ ID NO.	AAA34122.1	BAA22948.1	AAA34176.1	AAF40224.1	CAA37129.1	CAA68036.1	AAA33389.1	AAA34179.2	BAA21643.1	AAB67733.1	BAA95629.1	BAA05643.1	CAA73065.1	BAA24929.1	BAA24928.1	BAA00885.1	AAA8489.1

Oryza longistaminata Oryza eichingeri Oryza sativa Oryza rufipogon	s entum	רו מובר ווי	Catharanthus roseus Oryza sativa Oryza sativa Oryza sativa Hordeum vulgare	Glycine max Triticum aestivum Zea mays Lycopersicon esculentum Pisum sativum Lycopersicon esculentum
U39862 U39864 U39866 U39867 B18	AD001270 AE126255 AB039746 AF200825 AJ006224 AF200826 AF200826 AF2008278 AD023385 AB023386 AB023386	AB023387 819 AF274033 AJ299252 AF245119 AB023482 AF071893 AJ251249	AJ251250 AB036883 AF193803 AP002526 AF298231	AF180143 M28059 AF034946 L23762 L29077 X73419
AAC49214.1 AAC49213.1 AAC49220.1 AAC49218.1 SEQ ID NO.	CAAU464.1 AAD20634.1 BAA92365.1 AAF19821.1 CAA06921.1 AAF19820.1 AAF19820.1 AAF19820.1 AAF19820.1 BAAF1980.1 BAA97745.1 BAA82133.1 BAA82133.1		CAB96900.1 BAB16083.1 AAF23899.1 BAA99376.1 AAK01089.1	AAF03236.1 AAA34309.1 AAB88617.1 AAA34125.1 AAA64427.1 CAA51821.1
Glycine max Nepeta racemosa Capsicum annuum Glycine max Glycine max Nicotiana tabacum	Solanum melongena Solanum melongena Solanum melongena Nepeta racemosa Triticum aestivum Catharanthus roseus Mentha x piperita Petunia x hybrida Mentha x piperita Lycopersicon esculentum x		Zea mays Phaseolus vulgaris Phaseolus vulgaris Oryza sativa Zea mays Gerbera hybrida	Petunia x hybrida Petunia x hybrida Petunia x hybrida Oryza rufipogon Oryza officinalis
AF022460 Y09423 AF122821 AF022157 AF022459 AF166332	X70981 D14990 X71654 Y09424 AB036772 AJ238612 AF124815 Z33875 AF125332 AF155881 PETUVIANUM	AF218296 AF214009 X96784 AF214007 AF214008 AJ295719 X95342 U72654	816 AF061107 U18349 U18348 U39860 AJ251719	AF260919 AF260918 AF020545 U39861 U39865
AAB94589.1 CAA70575.1 AAF27282.1 AAB94584.1 AAB94588.1	CAA50312.1 BAA03635.1 CAA50645.1 CAA70576.1 BAB40322.1 CAB56503.1 AAD44150.1 CAA83941.1 AAD56282.1 AAD54152.1 AAD37433.1 Lycopersicon		SEQ ID NO. 8 AAD15818.1 AAC28907.1 AAB00686.1 AAC49219.1 CAB92300.1	AAG25928.1 AAG25928.1 AAG39455.1 AAC49217.1 AAC49216.1

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Pinus sylvestris Marsilea quadrifolia Crateroeticma plantagineum		Nicotiana tabacum	Hordeum vulgare	Zea mays	Zea mays	Zea mays	Pinus sylvestris	Selaginella lepidophylla	Petroselinum crispum	Magnolia liliiflora	Physcomitrella patens	Oryza sativa	Mesembryanthemum crystallinum	Mesembryanthemum crystallinum	Pisum sativum	Pisum sativum	Ranunculus acris	Nicotiana tabacum	Atriplex nummularia	Petunia x hybrida	Antirrhinum majus	Atriplex nummularia	Taxus baccata	Zea mays	Zea mays	Solanum tuberosum	Lycopersicon esculentum	Hordeum vulgare	Lycopersicon esculentum	Zea mays	Triticum aestivum	Zea mays	Nicotiana tabacum	Chloroplast Pisum sativum	Oryza sativa	Chloroplast Chlamydomonas		Zea mays
AJ001706 AJ003783	A/630/ L26924	AJ133422	X60343	045858	045855	X731.51	L07501	U96623	X60344	X60347	X72381	U31676	J05223	M29956	X73150	L07500	X60345	M14419	002886	X60346	X59517	X75597	L26922	045856	U45857	017005	U97257	M36650	U93208	L13432	AF251217	L13431	M14418	M55147	AP000615	127668		X15408
CAA04942.1 CAA06030.1	AAA33352.1	CAB39974.1	CAA42901.1	AAA87880.1	AAA87578.1	CAA51676.1	AAA33779.1	AAB59010.1	CAA42902.1	CAA42905.1	CAA51071.1	AAA82047.1	AAA33033.1	AAA33031.1	CAA51675.1	AAA33667.1	CAA42903.1	AAA34077.1	AAA03442.1	CAA42904.1	CAA42103.1	CAA53269.1	AAA89207.1	AAA87579.1	AAA87580.1	AAB07758.1	AAB54003.1	AAA32956.1	AAB51592.1	AAA33466.1	AAF64241.1	AAA33465.1	AAA34076.1	AAA84543.1	BAA85402.1	AAA86855.1	reinhardtii	CAA33455.1
Mesembryanthemum crystallinum Avicennia marina	Catharanthus roseus Nicotiana tabacum	Triticum aestivum	Nicotiana tabacum	Oryza sativa	· Lycopersicon esculentum	Brassica oleracea		Oryza sativa	Mesembryanthemum crystallinum	Zea mays	Zea mays	Prunus armeniaca	Oryza sativa	Pseudotsuga menziesti	•		Brassica oleracea		Orvza sativa	Pimpinella brachycarpa	•		Nicotiana plumbaginifolia			Lycopersicon esculentum	Pisum sativum	Oryza sativa	Coffea arabica	Nicotiana sylvestris				Selaginella lepidophylla			Chloroplast Pinus sylvestris	Chloroplast Pinus sylvestris
AF176040 AF262934	AF091621 AB026055	M62720	AB026056	U15971	X82938	017250	AX004247	AP001081	AF165420	AF032468	AJ002959	AE008910	D17786	AJ131733		821	AF098672	AF034944	AE094774	AF091857		822	AJ251365		823	AJ006414	AF043108	AJ251298	AB015599	AB006692	AF043109		826	U96718		827	L32560	L32561
AAD51109.1 AAF73016.1	AAD42941.1 BAB40310.1	AAA34310.1	BAB40311.1	AAB02168.1	CAA58111.1	AAA86089.1	AAG23847.1	BAA90392.1	AAF22280.1	AAC12662.1	CAA05772.1	AAB63513.1	BAA21006.1	CAA10494.1		SEO ID NO.		AAB88615.1	AAC67556.1	AAC61599.1		SEO ID NO.			SEO ID NO.		AAD02231.1	CAB61629.1	BAA29033.1	BAA24535.1	AAD02232.1			AAB57845.1		SEQ ID NO.	AAD10215.1	AAD10214.1

Avena sativa Chlorella vulgaris	Betula pendula	חסדתפחווו אתדקמדפ	Eleusine indica	FISUM SACIVOM	zea mays	Eleusine indica	Eleusine indica	Daucus carota	Oryza sativa	Zea mays	Triticum aestivum	Hordeum vulgare	Eleusine indica	Anemia phyllitidis	Volvox carteri	Volvox carteri	Oryza sativa	Chlamydomonas reinhardtii 🖔	Nicotiana tabacum	Chloromonas sp. ANT1	Oryza sativa	Chloromonas sp. ANT3	Chlamydomonas reinhardtii	Hordeum vulgare	Zea mays	Zea mays	Oryza sativa	Chlorella ellipsoidea	Eucalyptus globulus subsp.			Mesembryanthemum crystallinum	Hordeum vulgare	Zea mays	Pisum sativum	Daucus carota	Eleusine indica	Zinnia elegans	
X97446 D16504	AJ279695	AU132399	AFOUS121	012389	XI5/04	AJ005598	AF008120	AY007250	AF182523	X15704	U76558	X08490	AJ005599	X69183	L,24546	X12846	X91806	M11447	AB052822	AF032876	X91807	AE032877	M11448	U40042	X63176	M60171	AF030548	AB038515	U37794		X69184	AF097662	AJ276012	X73980	X54844	063927	AF059287	D63137	
CAA66075.1 BAA03955.1	CAB66336.1	CARLUSSS.1	AAC05718.1	AAA/9910.1	CAA33734.1	CAA06618.1	AAC05717.1	AAG02564.1	AAG16905.1	CAA33733.1	AAD10486.1	CAA69724.1	CAA06619.1	CAA48927.1	AAA99438.1	CAA31326.1	CAA62916.1	AAA33095.1	BAB19779.1	AAB86649.1	CAA62917.1	AAB86648.1	AAA33098.1	AAB06791.1	CAA44861.1	AAA33518.1	AAB84298.1	BAA92148.1	AAB36609.1	bicostata	CAA48928.1	AAD11425.1	CAB76917.1	CAA52158.1	CAA38613.1	AAB64308.1	AAD20178.1	BAA82638.1	
	Daucus carota	Triticum aestivum	Anemia phyllitidis	Nicotiana tabacum	Nicotiana tabacum	Cucumis sativus	Chlamydomonas reinhardtii	Nicotiana tabacum	Oryza sativa	Mesembryanthemum crystallinum	Nicotiana plumbaginifolia	Nicotiana tabacum	-	Nicotiana plumbaginifolia	Spinacia oleracea	Spinacia oleracea	Nicotiana plumbaqinifolia	Nicotiana plumbaqinifolia	Vicia faba	Hordeum vulgare	Hordenm vulgare	Triticum aestivum	Hordeum vulgare	Zen mays	Phaseolus vulgaris	7	Pisum sativum			Zea mays	Orvza sativa	Orvza sativa	Eleusine indica	Zea mays	Zea mays	Hordeum vulgare	Miscanthus sinensis		Prunus dulcis
828	AE349964	081318	226042	AF190655	AF190657	AF240679	AE043297	AF190656	AF153689	AF003126	AJ292768	1190212	A.1292767	A.7272011	1134742	X57955	X65118	X65117	70070X	A.TO05286	D.T224324	N38485	D.T224325	M74566	X82030	1,15080	1181287		829	X63178	211931	X91808	AF008122	105258	x63177	£ 6966X	AJ133710	AJ133709	X67162
SEO TD NO. 8		AAB38974.1	CAA81127.1	AAF66823.1	AAE66825.1	AAF63202.1	AAC39368.1	AAE66824.1	AAD37807.1	1 1991 Sara	CAC01238 1	1.05340744 1.05885044	Cacolo37 1	CAB75429 1	1.03101000 1.000444	1.040.7447	Cand 6234 1	1.5523447	1.00799447	1.67500447	ר המפרואה	1 11000449	CAN11894 1	1.22466.1	1.1547447	1 95055444	1 7 1 4 1 7 H A A	71175	SEO ID NO.		C 88677447	CA462918 1	1 91650744	1,525,1444	CAA44862.1	Cap67942 1	CAR77672.1	CAB77671.1	CAA47635.1

SEQ ID NO.	830		AAB28535.1	366160	Oryza sativa
CAA62476.1	06606X	Solanum tuberosum	CAA98159.1	273931	Lotus japonicus
CAA66616.1	x97980	Solanum berthaultii	BAA02115.1	D12547	Pisum sativum
AAF66637.1	AF143505	Lycopersicon esculentum	CAA66447.1	X97853	Lotus japonicus
•	AP002481	Oryza sativa	AAD10389.1	U35026	Petunia x hybrida
CAA82993.1	230332	Spinacia oleracea	AAA80679.1	U38465	Lycopersicon esculentum
CAA82994.1	Z30333	Mesembryanthemum crystallinum	CAA98176.1	273948	Lotus japonicus
AAA50304.1	M92989	Pisum sativum	CAA89021.1	249152	Beta vulgaris
CAA82992.1	230331	Mesembryanthemum crystallinum	CAA981.72.1	273944	Lotus japonicus
CAA82991.1	Z30330	Spinacia oleracea	CAA04701.1	AJ001367	Daucus carota
BAB03409.1	AP002816	Oryza sativa	CAA90080.1	249900	Pisum sativum
CAB82852.1	230329	Mesembryanthemum crystallinum	AAD46405.1	AF096249	Lycopersicon esculentum
AAD50584.1	AF089097	Salvia columbariae	CAA98174.1	273946	Lotus japonicus
AAD50585.1	AF089099	Salvia columbariae	CAA90082.1	249902	Pisum sativum
AAD50586.1	AF089100	Salvia columbariae	CAA49600.1	08669X	Lycopersicon esculentum
•	089678	Lycopersicon esculentum	CAA98175.1	273947	Lotus japonicus
CAA50374.1	X71057	Nicotiana tabacum	CAA90081.1	249901	Pisum sativum
AAD50587.1	AE089101	Salvia columbaríae	AAB17726.1	U38471	Brassica rapa
AAD50588.1	AF089102	Salvia columbariae	AAA34251.1	L08128	Volvox carteri
AAB93860.1	089679	Lycopersicon esculentum	CAA98173.1	Z73945	Lotus japonicus
AAB93861.1	089680	Lycopersicon esculentum	CAA89049.1	249190	Beta vulgaris
AAD50589.1	AF089103	Salvia columbariae	CAA98179.1	273951	Lotus japonicus
•	U89681	Lycopersicon esculentum	AAA34253.1	L08130	Volvox carteri
CAA46554.1	X65604	Hordeum vulgare	CAA98165.1	Z73937	Lotus japonicus
AAD37166.1	AF132743	Oryza sativa	AAA63902.1	U22433	Zea mays
			AAA90955.1	U32185	Glycine max
SEQ ID NO.	832				
CAA98160.1	273932	Lotus japonicus	SEQ ID NO. 8	833	
BAA76422.1	AB024994	Cicer arietinum	BAA76902.1	AB025968	Glycyrrhiza glabra
BAA02116.1	D12548	Pisum sativum	BAA23533.1	D89619	Pisum sativum
CAA69701.1	X08425	Nicotiana plumbaginifolia	BAA33460.1	AB009029	Panax ginseng
AAA80678.1	U38464	Lycopersicon esculentum	AAG44096.1	AF216755	Abies magnifica
BAA02118.1	D12550	Pisum sativum	BAA85266.1	AB03334	Luffa cylindrica
AAB97115.1	U58854	Glycine max	BAA86931.1	AB025344	Olea europaea
CAA51011.1	X72212	Nicotiana tabacum	CAA75588.1	Y15366	Medicago truncatula
AAF65510.1	AF108883	Capsicum annuum			
AAA80680.1	U38466	Lycopersicon esculentum	SEQ ID NO. 8	834	
CAA98161.1	. 273933	Lotus japonicus	CAB89179.1	AJ245479	Brassica napus subsp. napus
BAA02117.1	D12549	Pisum sativum	BAA92836.1	AB032473	oleracea
CAA98162.1	273934	Lotus japonicus	BAA92837.1	AB032474	Brassica oleracea
AAA50159.1	L27417	Glycine max	BAB21001.1	AB054061	Brassica rapa

291	
Sorghum bicolor Triticum aestivum Nicotiana sylvestris Hordeum vulgare Nicotiana sylvestris Sinapis alba Sinapis alba Pelargonium x hortorum Citrus unshiu Hordeum vulgare Nicotiana plumbaginifolia Glycine max Oryza sativa Cryza sativa Zea mays Euphorbia esula Triticum aestivum Nicotiana tabacum Hordeum vulgare Sorghum bicolor Oryza sativa Euphorbia esula Triticum aestivum Nicotiana tabacum Hordeum vulgare Sorghum bicolor Oryza sativa Euphorbia esula Triticum aestivum Nicotiana tabacum Hordeum vulgare Sorghum bicolor Oryza sativa Euphorbia esula Euphorbia esula	Oryza sativa Triphysaria versicolor Lycopersicon esculentum Lycopersicon esculentum Zinnia elegans Prunus armeniaca Prunus avium Prunus persica Zinnia elegans Cicer arietinum Fragaria x ananassa Prunus armeniaca
X57662 U32310 D16204 Z48624 D16205 D16205 L31377 L31374 AF009003 ABD07819 AJ224324 AJ224324 AJ224324 AJ2224324 AJ22232 AJ022894 AJ22233 AJ022894 AJ022893 AJ022893 AJ02893 AF031933 AF031933 AF031933 AF031933 AF031933 AF031933 AF031933 AF031933 AF031933 AF031933	AF247164 AF230277 U82123 AF059488 AF230331 U93167 AF230332 AF230332 AJ291817 AF159563 AF038815
	AAF62182.1 AAF32410.1 AAC63088.1 AAD13632.1 AAC33529.1 AAC33529.1 AAG13982.1 BAB19676.1 AAF35901.1 CAC19184.1 AAF21101.1
Cicer arietinum Glycyrrhiza echinata Glycyrrhiza echinata Cicer arietinum Cicer arietinum Lotus japonicus Helianthus tuberosus Helianthus tuberosus Nicotiana tabacum Cicer arietinum Persea americana Glycine max Petunia x hybrida Glycine max Nicotiana tabacum Glycine max Nicotiana tabacum Glycine max Nicotiana tabacum Glycine max Sisum sativum Pisum sativum Pisum sativum Pisum sativum Pisum sativum Glycine max Pisum sativum Pisum sativum Pisum sativum Pisum sativum Clycine max Nepeta racemosa Nepeta racemosa Nepeta racemosa Clycine max Cocenia hybrida Cocenia hybrida	Eustoma grandiflorum Glycyrrhiza echinata Glycyrrhiza echinata Glycyrrhiza echinata Oryza sativa Nicotiana sylvestris Nicotiana sylvestris Sorghum bicolor Nicotiana glutinosa
835 AJ239051 AB001379 AB002732 AJ012581 AJ238439 AD0238439 AD02616 AJ249800 M32885 D83968 AJ249800 M32885 D83968 AF155332 AF022461 X95342 AF155332 AF022461 X95342 AF022461 X95342 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485 AF135485	U72654 AB002733 AB001380 836 S66160 B39 D83696 D26182 AF310215 AF005359
SEQ ID NO. CAB43505.1 BAA22422.1 BAA74465.1 CAA10067.1 CAA10067.1 CAA04117.1 CAA04117.1 CAA65580.1 CAA52913.1 BAA32913.1 AAB94590.1 CAA70576.1 AAB94587.1 AAB94587.1 AAB94587.1 AAB94587.1 BAA92894.1 BAA92894.1 BAA92894.1 BAA92894.1 CAB56743.1 CAB56743.1	eaaa ya yaaaa

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Zea mays Oryza sativa Zea mays Lithospermum erythrorhizor Brassica juncea Populus tremula x Populus	Pisum sativum Dolichos biflorus Glycine soja Glycine soja Glycine soja Lotus japonicus Dolichos biflorus Medicago sativa Pisum sativum Colanum tuberosum Pisum sativum Pisum sativum Pisum sativum Pisum sativum Solanum tuberosum Pisum sativum Pisum sativum Pisum sativum Solanus sativa	
846 AF135014 AP001129 U16254 AB026124 848 AJ132363 AF190881	AE056027 AF305783 AF156781 AF207688 AF207688 AF156780 AF139807 AF139807 AF139807 AF139807 AF038669 AB038669 AB038669 AB038654 AB038651 AB038651 AB038651 AB038651 AB038669 AB0386939 AB037421 A31480	•
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Cucumis sativus Pinus taeda Triphysaria versicolor Prunus avium Gossypium hirsutum Pinus taeda Nicotiana tabacum Pinus taeda Pinus taeda	Lycopersicon esculentum Lycopersicon esculentum Oryza sativa Rumex palustris Nicotiana tabacum Marsilea quadrifolia Zinnia elegans Lycopersicon esculentum Oryza sativa Triphysaria versicolor Regnellidium diphyllum Oryza sativa Cicer arietinum Lycopersicon esculentum Oryza sativa Eustoma grandiflorum Festuca pratensis Striga asiatica Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Striga asiatica Striga asiatica Striga asiatica Datisca glomerata	
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AAB37746.1 AAD47901.1 AAF32409.1 AAG13983.1 AAC39512.1 AAB40637.1 AAB40634.1 AAB40635.1	AAC64201.1 CAB43197.1 AAB81662.1 AAC96080.1 AAC96080.1 AAC35902.1 AAC32921.1 AAC32921.1 AAC32921.1 AAC32921.1 AAC32921.1 AAC32921.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1 AAC32920.1	

	Spinacia oleracea Spinacia oleracea Spinacia oleracea Populus kitakamiensis Populus balsamifera subsp. Asparagus officinalis Spirodela polyrrhiza Populus balsamifera subsp.	Populus nigra Populus balsamifera subsp. Populus kitakamiensis 6 Glycine max Glycine max Hordeum vulgare Linum usitatissimum Medicago sativa Spinacia oleracea	
AJ401276 L13653 Y19023 X90694 X71593 AF145350 L77080	Y10463 Y10470 Y10468 D30652 X97348 AB042103 Z22920	D83224 X97350 D38051 U51191 AF007211 M73234 L07554 L07554 L36156 AF244924	AF155124 859 AJ005082 U31544 AJ005081 AJ295156 AJ275318 AB059568 U82433
CAC21393.1 AAA65636.1 CAB67121.1 CAA6227.1 CAA50597.1 AAD37376.1	CAA71489.1 CAA71496.1 CAA71494.1 BAA06334.1 CAA66034.1 trichocarpa BAA94962.1 CAA66035.1	trichocarpa BAA11852.1 CAA66036.1 trichocarpa BAA07241.1 AAD11481.1 AAC98519.1 AAA32973.1 AAB47602.1 AAB41810.1 AAE63027.1	
Spinacia oleracea Avicennia marina Nicotiana tabacum Beta vulgaris Atriplex hortensis Amaranthus hypochondriacus Beta vulgaris	Amaranthus hypochondriacus Oryza sativa Avicennia marina Oryza sativa Pisun sativum Hordeum vulgare Apium graveolens Nicotiana plumbaginifolia Oryza sativa	sativa oleracea repens sativa num crispum tatissimum ia baicalen	Spinacia oleracea Vigna angularis Armoracia rusticana Spinacia oleracea Ipomoea batatas Oryza sativa Manihot esculenta Oryza sativa Medicago sativa Spinacia oleracea Arachis hypogaea
U69142 AB043540 Y09876 X58463 X69770 AF017150	AF00132 AB001348 AB0043539 AF045770 X75327 D26448 AF196292 U87848	858 136158 110469 AJO11939 X90695 136981 U59284	X97351 X10462 D11337 D90115 X10464 AJ242742 AP001383 AF078691 AP001366 X90693 AF244921 M37637
AAB41696.1 BAB18544.1 CAA71003.1 CAA41377.1 CAA49425.1 AAB70010.1	AAB58165.1 BAA21098.1 BAB18543.1 AAC03055.1 CAA53076.1 BAA05466.1 AAF08296.1 AAB47571.1		CAA66037.1 trichocarpa CAA71488.1 BAA01950.1 CAA71490.1 CAB94692.1 BAA92497.1 AAC36707.1 CAA62226.1 AAF63024.1 AAR32676.1

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| | | Nicotiana plumbaginifoli | Musa acuminata | Musa acuminata | Oryza sativa | Triticum aestivum | Nicotiana tabacum | Nicotiana tabacum | Nicotiana tabacum | Hordeum vulgare | Hordeum vulgare | Hevea brasiliensis | Oryza sativa | Oryza sativa | Vitis vinifera | Oryza sativa | Glycine max | Nicotiana tabacum
 | Oryza sativa

 | Oryza sativa | Hevea brasiliensis | Glycine max | Solanum tuberosum
 | Solanum tuberosum | Solanum tuberosum | Hevea brasiliensis | Citrus sinensis | Phaseolus vulgaris | Nicotiana tabacum | | | Solanum tuberosum
 | Linum usitatissimum | Nicotiana glutinosa | Linum usitatissimum | Linum usitatissimum | Linum usitatissimum | Glycine max | Linum usitatissimum | Linum usitatissimum
 |
| X07280 | M23120 | M63634 | AF001523 | AE004838 | U72252 | AF112965 | M60402 | M59442 | M60403 | M62907 | AE030771 | U22147 | AB027429 | AB027430 | AJ277900 | 072250 | M37753 | AF141654
 | AF030166

 | 072253 | AJ133470 | U41323 | 001901
 | 001900 | AF067863 | AF311749 | AJ000081 | X53129 | X81560 | | 862 | AJ009720
 | AF310964 | U15605 | AF310968 | AF310960 | AF310966 | AF175388 | AF310962 | AE310961
 |
| CAA30261.1 | AAA51643.1 | AAA34078.1 | AAB82772.2 | AAF08679.1 | AAD10383.1 | AAD28732.1 | AAA63539.1 | AAA63541.1 | AAA63540.1 | AAA32939.1 | AAC14399.1 | AAA87456.1 | BAA77784.1 | BAA77785.1 | CAB91554.1 | AAD10381.1 | AAA33946.1 | AAD33881.1
 | AAB86541.1

 | AAD10384.1 | CAB38443.1 | AAB03501.1 | AAA18928.1
 | AAA88794.1 | AAC19114.1 | AAG24921.1 | CAA03908.1 | CAA37289.1 | CAA57255.1 | | | CAA08798.1
 | AAK28810.1 | AAA50763.1 | AAK28812.1 | AAK28806.1 | AAK28811.1 | AAG09951.1 | AAK28809.1 | AAK28808.1
 |
| Citrus unshiu | Nicotiana tabacum | Petunia x hybrida | | | | Sorghum bicolor | Perilla frutescens | Scutellaria baicalensis | Nicotiana tabacum | Nicotiana tabacum | | Nicotiana tabacum | Lycopersicon esculentum | Forsythia x intermedia | Dorotheanthus bellidiformis | Perilla frutescens | Vitis labrusca x Vitis vinifera | Vitis vinifera
 | Vitis vinifera

 | Vitis vinifera | Vitis vinifera | Vitis vinifera | Vitis vinifera
 | Vitis vinifera | Vitis vinifera | Vitis labrusca x Vitis vinifera | Vitis vinifera | Vitis vinifera | Ipomoea batatas | Ipomoea purpurea | Gentiana triflora | Petunia x hybrida
 | | | Oryza sativa | Salix gilgiana | Pisum sativum | Brassica napus | Triticum aestivum | Nicotiana tabacum
 |
| AB033758 | AF190634 | AB027455 | L34847 | AB013598 | AB013596 | AF199453 | AB013597 | AB031274 | U32643 | AF346432 | U32644 | ന | X85138 | AF127218 | X18871 | AB002818 | AB047090 | AB047096
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 | AB047092 | AB047095 | AB047093 | AB047099
 | AB047098 | AB047097 | AB047091 | AF000371 | AF000372 | AB038248 | AF028237 | D85186 | AB027454
 | | 191 | 072255 | AB029462 | AJ251646 | X69887 | U30323 | Z28697
 |
| BAA93039.1 | AAF61647.1 | BAA89009.1 | AAA59054.1 | BAA36423.1 | BAA36421.1 | AAE17077.1 | BAA36422.1 | BAA83484.1 | AAB36652.1 | AAK28304.1 | AAB36653.1 | AAK28303.1 | CAA59450.1 | AAD21086.1 | CAB56231.1 | BAA19659.1 | BAB41017.1 | BAB41023.1
 | BAB41021.1

 | BAB41019.1 | BAB41022.1 | BAB41020.1 | BAB41026.1
 | BAB41025.1 | BAB41024.1 | BAB41018.1 | AAB81682.1 | AAB81683.1 | BAA90787.1 | AAB86473.1 | BAA12737.1 | BAA89008.1
 | | | AAD10386.1 | BAA89481.1 | CAB85903.1 | CAA49513.1 | AAA90953.1 | CAA82271.1
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CAA67554.1 CAA72330.1 CAA10288.1 CAA72291.1 CAA58760.1 CAB37188.1 AAF65766.1 CAA47099.1	AAD37790.1 AAF23902.1 CAA50036.1 CAC13967.1 BAA09600.1 AAD52659.1 AAK01710.1 AAG40579.1 CAA58761.1 CAA58761.1 CAA573236.1	
Triticum aestivum Triticum aestivum Triticum aestivum Oryza sativa Oryza sativa Oryza sativa Triticum aestivum	Populus tremula x Populus Oryza sativa Pisum sativum Zea mays Zea mays Solanum tuberosum Mesembryanthemum crystallinum Pisum sativum Solanum tuberosum Brassica napus	Oryza sativa Oryza sativa Petunia x hybrida Oryza sativa Oryza sativa Nicotiana tabacum Medicago sativa Medicago sativa Medicago sativa Micotiana tabacum Nicotiana tabacum Brassica napus Nicotiana tabacum Petunia x hybrida Petunia x hybrida Petunia x hybrida Nicotiana tabacum Micotiana tabacum Redicago sativa
U48689 U48688 U48242 Z12827 L18914 Z12828 L14071 U48692	874 AF097938 AC082645 AJ250769 U89341 AJ240054 U84888 AJ250770 AJ250770	875 X13437 AP001551 X83619 AP001278 AB059621 X77763 X68410 X68410 X08607 AJ224163 Y12674 AJ002315 AJ224165 X83620 AJ224164 AJ002314 AJ002314
AAC49580.1 AAC49579.1 AAC49578.1 CAA78287.1 AAA33900.1 CAA78288.1 AAA16320.1 AAA16320.1	.404444444	SEQ ID NO. 6 CRA73848.1 BRA92966.1 CRA58594.1 BRA92214.1 BRA92214.1 CRA48474.1 CRA48472.1 CRA48472.1 CRA69899.1 CRA69899.1 CRA73214.1 CRA658595.1 CRA58595.1 CRA58595.1 CRA58595.1 CRA58595.1

CAA91445_1	2.665.44	Pisim sativim	BAA92836.1	AH032473	Brassica oleracea
AAA68290.1	007339	Orvza sativa	CAB51836.1	AJ243961	Orvza sativa
AAC49442.1	U26660	Oryza sativa			1
CAA57448.1	X81855	Nicotiana tabacum	SEQ ID NO.	879	
AAA68289.1	007338	Oryza sativa	AAC61805.1	U28007	Lycopersicon esculentum
CAB61763.1	AJ251246	Saccharum officinarum	AAF91336.1	AF249317	Glycine max
CAA79819.1	221722	Zea mays	AAF91337.1	AF249318	Glycine max
BAA03354.1	D14457	Zea mays	AAG16628.1	AX007545	Brassica napus
CAA63404.1	X92743	Oryza sativa	AAC27894.1	AF023164	
CAA79818.1	221721	2ea mays	AAC27895.1	AF023165	Zea mays
BAA03353.1	D14456	Zea mays	BAA94509.1	AB041503	Populus nigra
			BAA94510.1	AB041504	Populus nigra
SEQ ID NO.	878		AAK21965.1	AY028699	Brassica napus
AAC61805.1	U28007	Lycopersicon esculentum	AAG03090.1	AC073405	Oryza sativa
AAF91336.1	AF249317	Glycine max	AAG25966.1	AF302082	Nicotiana tabacum
AAF91337.1	AF249318	Glycine max	BAA78764.1	AB023482	Oryza sativa
AAC27894.1	AF023164	Zea mays	AAB09771.1	U67422	Zea mays
AAG16628.1	AX007545	Brassica napus	AAF43496.1	AF131222	Lophopyrum elongatum
AAC27895.1	AF023165	Zea mays	AAK11674.1	AF339747	Lophopyrum elongatum
BAA94509.1	AB041503	Populus nigra	AAF66615.1	AF142596	
BAA94510.1	AB041504	Populus nigra	CAA97692.1	273295	Catharanthus roseus
AAK21965.1	AX028699	Brassica napus	CAB51834.1	69000	Oryza sativa
AAG03090.1	AC073405	Oryza sativa	AAB47421.1	U59316	Lycopersicon esculentum
AAK11674.1	AE339747	Lophopyrum elongatum	AAF76313.1	AF220603	Lycopersicon esculentum
AAE43496.1	AF131222	Lophopyrum elongatum	CAB51836.1	AJ243961	Oryza sativa
AAG25966.1	AF302082	Nicotiana tabacum	AAE76306.1	AF220602	Lycopersicon pimpinellifolium
BAA78764.1	AB023482	Oryza sativa	AAC48914.1	U02271	Lycopersicon pimpinellifolium
AAB09771.1	U67422	Zea mays	AAB47423.1	059315	Lycopersicon pimpinellifolium
AAF66615.1	AF142596	Nicotiana tabacum	AAK11566.1	AF318490	Lycopersicon hirsutum
CAB51834.1	69000	Oryza sativa	AAC36318.1	AE053127	Malus x domestica
CAA97692.1	273295	Catharanthus roseus	AAF91323.1	AF244889	Glycine max
AAE76313.1	AF220603	Lycopersicon esculentum	AAF91324.1	AF244890	Glycine max
AAB47421.1	U59316	Lycopersicon esculentum	AAK11567.1	AF318491	Lycopersicon hirsutum
AAF76306.1	AF220602	con			
AAC48914.1	002271	Lycopersicon pimpinellifolium	SEQ ID NO. 8	880	
AAB47423.1	059315	Lycopersicon pimpinellifolium	AAA80499.1	020594	Lycopersicon esculentum
AAK11566.1	AF318490	Lycopersicon hirsutum	CAA54314.1	X77015	Solanum tuberosum
AAK11567.1	AF318491	Lycopersicon hirsutum	CAA48038.1	X67845	Solanum tuberosum
CAB89179.1	AJ245479	Brassica napus subsp. napus	AAC49457.1	U50152	Lycopersicon esculentum
AAA33008.1	M97667	Brassica napus	AAC49456.1	050151	Lycopersicon esculentum
AAC36318.1	AF053127	Malus x domestica	AAA80498.1	U20593	Lycopersicon esculentum

																	29	9														g						
Nicotiana tabacum Oryza sativa Oryza sativa		Oryza sativa	Oryza sativa	Hordeum vulgare				Oryza sativa	Oryza sativa	Nicotiana tabacum			Oryza sativa			Lycopersicon esculentum	Petunia x hybrida						Nicotiana tabacum	Antirrhinum majus		Lycopersicon esculentum	Zea mays		Lycopersicon esculentum	Pimpinella brachycarpa	Lycopersicon esculentum	Oryza sativa subsp. indica			Nicotiana glutinosa	Nicotiana tabacum	Solanum tuberosum	Solanum tuberosum
D31737 AE237568 AP001800	AF248493	00069	AF238477	AF100771	AF164021	AF238474	AF044489	AP003338	AF238475	D26601		883	AP000399		884	X99134	213996	U72762	AB028651	AB028650	Z13997	AB028652	AB028649	AJ006292	X98308	X99210	M73028	AF210616	X95296	AF161711	X95297	Y15219		888	U15605	AF211528	AJ009720	AJ009719
BAA06538.1 AAF68398.1 BAA94517.1	AAE78044.1	CAB51834.1	AAE78021.1	AAD46420.1	AAD46917.1	AAF78018.1	AAC01746.1	BAB39437.1	AAF78019.1	BAA05648.1			BAA83575.1		SEO ID NO.	CAA67575.1	CAA78386.1	AAB41101.1	BAA88223.1	BAA88222.1	CAA78387.1	BAA88224.1	BAA88221.1	CAB43399.1	CAA66952.1	CAA67600.1	AAA33500.1	AAG36774.1	CAA64614.1	AAF22256.1	CAA64615.1	CAA75509.1		SEQ ID NO.	AAA50763.1	AAG43546.1	CAA08798.1	CAA08797.1
Petroselinum crispum Phaseolus vulgaris		aestivum	Brassica rapa subsp. pekinensis	Vicia sativa	Vicia sativa	Catharanthus roseus	Glycine max	Petunia x hybrida	Persea americana	Catharanthus roseus	Glycine max	Petunia x hybrida	Pisum sativum	Solanum melongena	Pisum sativum	Lycopersicon esculentum x		Glycine max	Sinapis alba	Brassica napus	Glycine max	Brassica napus	Capsicum annum	Glycine max	Nepeta racemosa	Glycyrrhiza echinata			Faqus sylvatica	Glycine max	Arachis hypogaea		Oryza sativa	Lycopersicon esculentum	Hordeum vulgare	Lycopersicon esculentum	Lycopersicon esculentum	Rosa hybrid cultivar
X99825 AB037678	181	AF123609	AY029178	AF092917	AF030260	AJ238402	AF022457	AF155332	M32885	L19074	D83968	AF081575	AF175278	X70824	U29333	AF150881	-		AF069494	AF214007	AF022461	AF214008	AF122821	AF022459	X09423	AB001379		882	AJ298992	M67449	AY027437	AJ005077	AF305911	AF096250	AF305912	AF110518	AF110519	AX029067
CAA68143.1 BAA90521.1	SEQ ID NO. 8	AAG17470.1	AAK31592.1	AAG33645.1	AAD10204.1	CAB41474.1	AAB94586.1	AAD56282.1	AAA32913.1	AAA17732.1	BAA12159.1	AAC32274.1	AAG09208.1	CAA50155.1	AAC49188.2	AAD37433.1	Lycopersicon	BAA13076.1	AAD03415.1	AAG14961.1	AAB94590.1	AAG14962.1	AAF27282.1		•	BAA22422.1		SEQ ID NO. 8	CAC09580.1	AAA34002.1	AAK11734.1	CAA06334.1	AAG31141.1	AAD46406.1	AAG31142.1	AAD10056.1	AAD10057.1	AAK30005.1

	300	leracea
Linum usitatissimum Linum usitatissimum Spinacia oleracea Solanum tuberosum Zea mays	Antirrhinum majus Antirrhinum majus Antirrhinum majus Zea mays Antirrhinum majus Antirrhinum majus Antirrhinum majus Antirrhinum majus Antirrhinum majus Antirrhinum majus Antirrhinum majus Zea mays Zea mays Zea mays Brassica juncea	Solanum tuberosum Spinacia oleracea Triticum aestivum Zea mays Oryza sativa Oryza sativa Oryza sativa Cicer arietinu Capsicum annuum Brassica juncea Chloroplast Spinacia oleracea Oryza sativa
AF310960 AF310961 889 AF041848 AF073830 AF073830	891 AJ011622 AJ011623 AJ011621 U89496 X92369 X92079 AJ011623 AJ011623 AJ011623 X92079 AJ011621 X92079 AJ011623 X92079 AJ011623 X92079 AJ011623 X92079 AJ011621 X92369 U89496 U89496 U89496 U89496 U89496	AF044172 D10476 D13153 X85803 AF073695 AF073697 AF044173 AJ006024 X64874 Y10846 L05184 AF073696
AAK28805.1 AAK28808.1 SEQ ID NO. AAC18055.1 AAC26113.1 AAB64291.1		AAC25635.1 BAA01279.1 BAA02438.1 CAA59798.1 AAD23909.1 AAD23909.1 AAC25636.1 CAA06819.1 CAA46086.1 CAA17799.1 AAA16973.1 AAD23908.1
Glycine max Glycine max Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum	usitusitusitusitusitusitusitusitusitusit	Linum usitatissimum
AF175399 AF175388 AF093638 AF093641 U27081 AJ310155 AF093646	AJ310164 AJ310151 AF093647 AF093649 AF093644 AF093640 AF093640 AF093642 AF175394 AJ310158 AJ310158 AJ310159 AJ310159 AJ310159 AJ310159	AJ310156 AJ310150 AJ310153 AJ310151 AJ310150 AJ310152 AF310966 AF310966 AF310968 AF310964
AAG09954.1 AAG09951.1 AAD25965.1 AAD25968.1 AAA91021.1 AAA91022.1 CAC35330.1 AAD25973.1		CAC35331.1 CAC35323.1 CAC35328.1 CAC35332.1 CAC35322.1 CAC35327.1 CAC35327.1 AAK28811.1 AAK28811.1 AAK28810.1 AAK28810.1

	Picea abies Pisum sativum	Populus x generosa	Helianthus tuberosus			Pisum sativum	ï	-	Spinacia oleracea	Volvox carteri f. nagarien		:	Vigna radiata	riaveria trinervia	Hordeum vulgare		Chloroplast Lactuca sative	Chlamydomonas reinhardtii			Nicotiana sylvestris	Zea mays	Oryza sativa	Hordeum vulgare			Raphanus sativus	Malus x domestica	Nicotiana tabacum	Capsicum annuum	Lycopersicon esculentum	Nicotiana tabacum	Fragaria x ananassa	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
AE024634 U67186	AJ132538 AF057182	AE302498	226251	Z26252	AF057179	AE057181		897	X71397	AF110793		868	AF139468	M83119	008135	AF093634	AF162201	AF135791		668	X61664	AF052076	AF093635	X16092		006	AB000706	U77952	X70902	248451	AJ011943	X70903	X91839	866813	L08426	S 53630	L08425	X56737
AAB97736.1 AAC05022.1	CAC27143.1	AAK15261.1	CAA81210.1	CAA81211.1	AAC14743.1	AAC14745.1			CAA50520.1	AAD55575.1			AAD27880.2	AAA33344.1	AAA68147.1	AAC78106.1	AAF19787.1	AAD27871.1			CAA43841.1	AAC26196.1	AAC78107.1	CAA34218.1			BAA25432.1	AAB47752.1	CAA50259.1	CAA88361.1	CAA09882.1.	CAA50260.1	CAA62956.1	AAB28589.1	AAA33431.1	AAB25115.1	AAA33430.1	CAA40061.1
	Vicia faba Dienmestivnm		Mesembryanthemum crystallinum	Spinacia oleracea	Nicotiana tabacum	Zea mays	Oryza sativa	Oryza sativa	Oryza sativa	Zea mays	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Nicotiana tabacum	Pisum sativum	Zea mays	Pisum sativum	Pisum sativum	Chlamydomonas reinhardtii	Pisum sativum	Pisum sativum	Volvox carteri	Chlamydomonas reinhardtii	Pisun sativum	Pisun sativum	Pisum sativum	Pisum sativum	Spinacia oleracea	Catharanthus roseus	Papaver somniferum	Helianthus tuberosus	Viqna radiata	Populus x generosa		Triticum aestivum	Populus x generosa	
96	U14956	0 F 7 7 7 V		M86349	Y14032	AB035645	D17790	AP001129	AP000616	AB035644	D87547	D38445	D12815	D17410	AB004307	X99419	U10418	AF321525	AF321528	U10545	AF321527	AF321526	U22328	X78851	L15567	L15566	L15565	L15569	X64351	X69791	067185	Z26250	L07843	AF302496	249767	AF123610	AF302497	AF024635
SEO ID NO. 8	AAA21758.1	CAM309/8.1	AAA33029.1	AAA34029.1	CAA74359.1	BAA88237.1	BAA04616.1	BAA90642.1	BAA85425.1	BAA88236.1	BAA13417.1		BAA02248.1	BAA04232.1	BAA20365.1	CAA67796.1	AAB40034.1	AAK09367.1	AAK09370.1	AAA79131.1	AAK09369.1	AAK09368.1	AAB40978.1	CAA55406.1	AAB59303.1	AAB59333.1	AAB59349.1	AAB59304.1	CAA45703.1	CAA49446.1	AAC05021.1	•			•		AAK15260.1	AAB97737.1

CAA34376.1	X16309	Zea mavs	AAA63901.1	1122432	Syem e92
AAA33436.1	J04550	Zea mays		U58854	Glycine max
BAA25433.1	AB000707	Avena sativa	AAB28535.1	866160	Oryza sativa
AAE3/3/6.1	7755	Ceratodon purpureus			
AAA33432.1	L08427	Zea mays	٠,	902	•
2			AAA50763.1	U15605	Nicotiana glutinosa
	TOA		CAA08798.1	AJ009720	Solanum tuberosum
	273955	Lotus japonicus	AAG09951.1	AF175388	Glycine max
•	X77301	Glycine max	AAK28809.1	AF310962	Linum usitatissimum
BAA02108.1	D12540	Pisum sativum	AAK28810.1	AF310964	Linum usitatissimum
	AF165095	Gossypium hirsutum	AAK28804.1	AF310959	Linum usitatissimum
CAA98186.1	273958	Lotus japonicus	AAK28812.1	AF310968	Linum usitatissimum
AAD48019.1	AF165096	Gossypium hirsutum	AAK28805.1	AF310960	Linum usitatissimum
AAB47558.1	U87143	Mesembryanthemum crystallinum	AAK28803.1	AF310958	Linum usitatissimum
CAA54507.1	X77302	Glycine max	AAK28808.1	AF310961	Linum usitatissimum
BAA06701.1	D31905	Zea mays	AAK28811.1	AF310966	Linum usitatissimum
	D13758	Oryza sativa	AAK28806.1	AF310960	Linum usitatissimum
AAK15703.1	AF327517	Oryza sativa	CAC35328.1	AJ310153	Linum usitatissimum
CAA89049.1	249190	Beta vulgaris	AAG43546.1	AF211528	Nicotiana tabacum
CAA98181.1	10	Lotus japonicus	CAC35332.1	AJ310157	Linum usitatissimum
BAA02114.1	D12546	Pisum sativum	CAC35325.1	AJ310150	Linum usitatissimum
•	Z73952	Lotus japonicus	CAC35336.1	AJ310161	Linum usitatissimum
•	U58853	Glycine max	CAA08797.1	AJ009719	Solanum tuberosum
•	10	Lotus japonicus	CAC35321.1	AJ310150	Linum usitatissimum
•	D12545	Pisum sativum	CAC35329.1	AJ310154	Linum usitatissimum
BAA02437.1	D13152	Oryza sativa	CAC35326.1	AJ310151	Linum usitatissimum
CAA98177.1	273949		CAC35339.1	AJ310164	Linum usitatissimum
BAA02112.1	D12544	Pisum sativum	CAC35338.1	AJ310163	Linum usitatissimum
BAA02111.1	D12543	Pisum sativum	CAC35330.1	AJ310155	Linum usitatissimum
CAA98184.1	273956	Lotus japonicus	CAC35334.1	AJ310159	Linum usitatissimum
BAA02110.1	D12542	Pisum sativum	CAC35337.1	AJ310162	Linum usitatissimum
CAA41966.1	X59276	Oryza sativa	CAC35327.1	AJ310152	Linum usitatissimum
CAA95859.1	271276	Mangifera indica	CAC35323.1	AJ310150	Linum usitatissimum
BAA06702.1	D31906	Zea mays	CAC35331.1	AJ310156	Linum usitatissimum
CAA98178.1	273950	Lotus japonicus	CAC35333.1	AJ310158	Linum usitatissimum
•		Pisum sativum	AAD25974.1	AE093647	Linum usitatissimum
•	AB007911	Pisum sativum	AAD25976.1	AE093649	Linum usitatissimum
٠	X98540	Fagus sylvatica	AAG09953.1	AF175398	Glycine max
•	X79278	Medicago sativa	AAD25966.1	AE093639	Linum usitatiskimum
CAA98182.1	273954	Lotus japonicus	AAD25965.1	AE093638	Linum usitatissimum
AAA34253.1	L08130	Volvox carteri	AAD25967.1	AE093640	Linum usitatissimum

Brassica oleracea Oryza sativa	Brassica oleracea		Sorghum bicolor	Nicotiana tabacum	Petunia x hybrida	Brassica napus	Forsythia x intermedia	Citrus unshiu	Scutellaría baicalensis	Gentiana triflora	Manihot esculenta	Nicotiana tabacum	Petunia x hybrida	Ipomoea batatas	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Zea mays	Zea mays		Perilla frutescens	Jpomoea purpurea	Zea mays	Vitis vinifera	Vitis vinifera	Vitis vinifera		labrusca	Vitis labrusca x Vitis vinifera	Vitis vinifera	Lycopersicon esculentum	Manihot esculenta	Vitis vinifera	Vitis vinifera	Vitis vinifera	Solanum melongena	Vitis vinifera
AB032473 L27821	AB032474	904	AF199453	AF190634	AB027455	AF287143	AF127218	AB033758	AB031274	D85186	X77462	AB000623	AB027454	AB038248	U32644	U32643	AE346431	AF346432	X07940	AF320086	X13500	AB013596	AF028237	X07937	AB047094	AB047092	AB047098	AF165148	AB047091	AB047090	AB047096	X85138	X77464	AE000371	AF000372	AB047097	X77369	AB047099
BAA92836.1 AAA33915.1	BAA92837.1	SEQ ID NO.	AAE17077.1	AAF61647.1	BAA89009.1	AAF98390.1	AAD21086.1	BAA93039.1	BAA83484.1	BAA12737.1	CAA54612.1	BAA19155.1	BAA89008.1	BAA90787.1	AAB36653.1	AAB36652.1	AAK28303.1	AAK28304.1	CAA30761.1	AAK16410.1	CAA31855.1	BAA36421.1	AAB86473.1	CAA30760.1	BAB41021.1	BAB41019.1	BAB41025.1	AAD55985.1	BAB41018.1	BAB41017.1	BAB41023.1	CAA59450.1	CAA54614.1	AAB81682.1	AAB81683.1	BAB41024.1	CAA54558.1	BAB41026.1
Linum usitatissimum Linum usitatissimum	Linum usitatissimum Linum usitatissimum	Linum usitatissimum	Glycine max	Linum usitatissimum	Linum usitatissimum	Linum usitatissimum	Linum usitatissimum	Linum usitatissimum	Glycine max	•		Glycine max	Faqus sylvatica	Arachis hypogaea	Lycopersicon esculentum	I,vcopersicon esculentum		Lycopersicon esculentum	Oryza sativa	Hordeum vulgare	Rosa hybrid cultivar	Brassica napus	Glycine max	Glycine max	Glycine max	Zea mays	Nicotiana tabacum	Brassica rapa	Brassica rapa	Catharanthus roseus	Brassica napus	Oryza sativa	Lophopyrum elongatum		ਕ	Malus x domestica	Ipomoea trifida	Brassica rapa
AF093643 AF093648	AF093644	AF093642	AF175389	AE093645	AF093641	1127081	AE093646	U27081	AF175399		903	M67449	AJ298992	AY027437	AJ005077	AF110519	AF110518	AF096250	AE305911	AF305912	AX029067	AX028699	AF244889	AF244890	AF244888	AF320086	D31737	D88193	D30049	273295	AJ010091	69000	AF131222	AF339747	000443	AE053127	020948	AB000970
AAD25970.1 AAD25975.1	AAD25971.1	1.010150AA	AAG09952.1	AAD25972.1	AAD25968.1	1.0000000	AAD25973.1	AAA91021.1	AAG09954.1	•	SEO ID NO. 9		CAC09580.1	AAK11734.1	CAA06334.1	AAD10057.1	AAD10056.1	AAD46406.1	AAG31141.1	AAG31142.1	AAK30005.1	AAK21965.1	AAF91323.1	AAF91324.1	AAF91322.1	AAK16409.1	BAA06538.1	BAA21132.1	BAA06285.1	CAA97692.1	CAA08995.1	CAB51834.1	AAF43496.1	AAK11674.1	AAA62232.1	AAC36318.1	AAC23542.1	BAA23676.1

BAB41020.1	AB047093	Vitis vinifera	AAD26204.1	AF117268	Malus x domestica
BAB41022.1	AB047095	~	AAB20555.1	269616	Hordeum vulgare
BAALY659.I	ABOUZBIB	Perilla frutescens	CAA78930.1 BAB40789.1	Z17221 ABO58641	Gerbera hybrida Lilium hybrid division T
SEQ ID NO.	. 506		AAD49343.1	AF169801	
AAF43095.1	AF053769	Malus x domestica	CAA75997.1	Y16041	
AAD00252.1	U76408	Lycopersicon esculentum	BAA36182.1	AB003495	Oryza sativa
CAB88029.1	AJ276389	Dendrobium grex Madame Thong-In	BAA36183.1	AB003496	Oryza sativa
BAA31699.1	AB016000	Ipomoea nil	CAA91924.1	Z67983	Dianthus caryophyllus
BAA31700.1	AB016001	Ipomoea nil	CAA69253.1	X07956	Oryza sativa
BAB18584.1	AB043956	Ceratopteris richardii	AAF60298.1	AF233639	Petunia x hybrida
AAB41849.1	U65648	Solanum tuberosum	CAA33544.1	X15537	Petunia x hybrida
BAB18582.1	AB043954	Ceratopteris richardii	AAG01030.1	AF291097	Dianthus gratianopolitanus
BAB18583.1	AB043955	Ceratopteris richardii	BAA19658.1	AB002817	Perilla frutescens
AAD09582.1	U76409	Lycopersicon esculentum	AAB94014.1	AF010283	Sorghum bicolor
AAC33008.1	AF080104	Pisum sativum	BAA12736.1	D85185	Gentiana triflora
AAG27464.1	AF308454	Medicago truncatula	CAA75998.1	X16042	Zea mays
BAA31698.1	AB015999	Ipomoea nil	CAA75996.1	X16040	Zea mays
AAF23753.2	AF193813	Brassica oleracea	CAA70345.1	X09127	Forsythia x intermedia
AAD00251.1	076407	Lycopersicon esculentum	AAB94015.1	AF010283	
AAC49917.1	AF000141	Lycopersicon esculentum	CAA79154.1	218277	Lycopersicon esculentum &
AAC32817.1	AF050180	Oryza sativa	CAA33543.1	X15536	
AAB81079.1	AF022390	Hordeum vulgare	BAA74700.1	AB018438	Ipomoea purpurea
AAD00692.1	090092	Picea mariana	BAA34637.1	AB019243	Ipomoea batatas
AAC49918.1	AF000142	Lycopersicon esculentum	AAB84048.1	AF028601	Ipomoea purpurea
AAD13611.1	AF100455	Zea mays	BAA74699.1	AB018437	Ipomoea purpurea
AAC32818.1	AF050181	Oryza sativa	BAA36406.1	AB011667	Ipomoea purpurea
			BAA59333.1	AB006793	Ipomoea nil
	906		BAA22072.1	AB006792	Ipomoea nil
AAF17576.1	AF202182		BAB20075.1	AB012924	Torenia hybrida
AAB41550.1	U28213	Medicago sativa subsp. sativa	AAB62873.1	AE007096	Bromheadia finlaysoniana
AAD17997.1	AF107404	Pisum sativum	BAA36405.1	AB011667	Ipomoea purpurea
CAA72420.1	X11749	Vitis vinifera			•
CAA91922.1	267981	Callistephus chinensis	SEQ ID NO. 9	910	
AAD54273.1	AF167556	Glycine max	CAC00658.1	AJ292745	Petroselinum crispum
CAA53578.1	X75964	Vitis vinifera	CAC00657.1	AJ292744	Petroselinum crispum
AAD56578.1	AF184271	Daucus carota	CAA74023.1	X13676	Antirrhinum majus
BAA12723.1	D85102	Rosa hybrid cultivar	CAA74022.1	X13675	Antirrhinum majus
	AF029685	Fragaria x ananassa	AAD55394.1	AF176641	Lycopersicon esculentum
BAA84940.1	AB018686	Camellia sinensis	BAA22204.1	D63951	Nicotiana tabacum
BAA84939.1	AB018685	Camellia sinensis	CAA71687.1	X10685	Glycine max

Camellia sinensis Ipomoea purpurea Ipomoea purpurea Camellia sinensis Vitis vinifera Ipomoea batatas Glycine max Glycine max Ipomoea purpurea Daucus carota	Fragaria x ananassa Zea mays Sorghum bicolor Zea mays Zea mays Phaseolus vulgaris	Nicotiana plumbaginifolia 60 Nicotiana tabacum Daucus carota Triticum aestivum Anemia phyllitidis Spinacia oleracea Chlamydomonas reinhardtii Cucumis sativus Hordeum vulgare Nicotiana tabacum Hordeum vulgare	Oryza sativa Pisum sativum Nicotiana tabacum Capsicum annuum Chloroplast Medicago sativa
AB018685 AB018438 AF028601 AB018686 X75964 AB019243 AF167556 AB011667 AF184271	AF029685 Y16041 AF010283 Y16042 Y16040 914 X82030 X97905	AJ292767 AJ292767 AF190655 AF349964 UB1318 Z26042 U34742 AF043297 AF240679 AJ224325 AF190657 AJ005286	915 AJ238318 918 211510 920 AB017480 X90472 AF332134
BAA84939.1 BAA74700.1 AAB84048.1 BAA53578.1 CAA53578.1 BAA34637.1 AAD54273.1 BAA36407.1	AAC25960.1 CAA75997.1 AAB94014.1 CAA75998.1 CAA75996.1 SEQ ID NO. CAA57551.1 CAA66479.1	CAA06469.1 AAFG6823.1 AAB38974.1 CAA81127.1 AAA79045.1 AAC39368.1 AAF663202.1 CAA11894.1 AAF66825.1 CAA06469.1	SEQ ID NO. CAC37011.1 SEQ ID NO. CAA77595.1 SEQ ID NO. BAA33755.2 CAA62084.1 AAK15322.1
Phaseolus vulgaris Petroselinum crispum Oryza sativa Oryza sativa Phaseolus acutifolius Oryza sativa Triticum aestivum Hordeum vulgare Phaseolus vulgaris Petroselinum crispum	Catharanthus roseus Petroselinum crispum Spinacia oleracea Vicia faba Lolium perenne Saccharum officinarum Zea mays	Populus balsamifera subsp. Populus balsamifera subsp. Populus tremuloides Eucalyptus gunnii Eucalyptus sannii Eucalyptus saligna Zea mays Vigna radiata Lillum hybrid cv. 'Acapulco'	Gerbera hybrida Vitis vinifera Callistephus chinensis Daucus carota Lilium hybrid division I Ipomoea nil Malus x domestica Ipomoea nil Ipomoea purpurea Ipomoea purpurea
AF350505 X58577 D78609 AB021736 AY026054 L34551 Y09013 Y10834 U57389	AY027510 AJ292743 AJ223624 X97903 X97903 AF278698 AJ231134 X98083	X13734 AJ295838 AJ224986 AF217958 X79566 X97433 AF297877 Y15069 AF033851	Z17221 Y11749 Z67981 AF184272 AB058641 AB006792 AF117268 AB0168437 AB011667
AAK25822.1 CAA41453.1 BAA11431.1 BAA36492.1 AAK01953.1 AAC37418.1 CAA70216.1 CAA71795.1 AAB36514.1	AAK14790.1 CAC00656.1 CAA11499.1 CAA66477.1 SEQ ID NO. 9 AAG09817.1 CAA13176.1 CAA66707.1	CAA74071.1 CAC0744.1 trichocarpa CAA12276.1 trichocarpa AAF43141.1 CAA56103.1 CAA66063.1 AAG16242.1 CAA75352.1 AAD53967.1	CAA78930.1 CAA72420.1 CAA91922.1 AAD56579.1 BAB40789.1 BAA22072.1 AAD26204.1 BAA59333.1 BAA74699.1

68.1 AF318492 Lycopersicon hirsutum 36.1 AF249317 Glycine max	NO. 927 45.1 AJ243876 Lycopersicon esculentum	928 AF161719	U79958	AF209910 Prunus dulc	96.1 AY0291/2 Helianthus annuus	AP001550	NO. 929	31.1 AF324244 Phaseolus vulgaris	46.1 M94204 Nicotiana tabacum	AF145053	61.1 AF264877 Zea mays	AE'234537	AF137379 Chloroplast Nephroselmis	ଷ	X14561		82.1 Y15108 Glycine max		936	U73203 Nicotiana glu	U75644 Lycopersicon	66.1 U83708 Lycopersicon esculentum		93			18.1 U54774 Nicotiana tabacum	10.1 L16977 Petunia x hybrida	19.1 L16797 Petunia x hybrida	33.1 AF020424 Nicotiana tabacum	10.1 AB056062 Oryza sativa	020250dr	87A70 00000000
AAK11568.1 AAF91336.1	SEQ ID NO. CAB51545.1	SEQ ID NO. AAF80450.1	AAB72110.1		reinhardtii AAK31596.1	BAA92985.1	SEQ ID NO	AAK09431.1	AAA18546.1	AAF15312.1	AAG32661.1		nm AAD54821.1	olivacea	CAA74893.1	AAF43860.1	CAA75382.1		SEQ ID NO.		AAB69757.1	AAC49666.1		SEQ ID NO.	AAC24195.1	entum AAK18620.1		subsp. napus AAA33710.1	AAA33709.1	AAC39483.1	BAB32870.1	1 83865848	0.4000
Nicotiana Capsicum a	Oryza Spinac Pinus	Oryza Oryza Oryza		Solanum tuberc	Chlamydomonas			9 Brassica napus	Oryza sati	5 Brassica napus	Daucus carota	2 Lophopyrum elongatum		2 Oryza sativ	-	3 · Populus nigra		4 Populus nigra	Oryza sativa	Lycopersicon esculentum		l Oryza sativa	Catharanth	6 Nicotiana tabacum	Zea mays	3 Lycopersicon esculentum	Lycopersicon esculentum	9 Brassica napus subs		Ī			
AF117339 AJ012165	AB033535 D86121 AF220199	AB052887 AB033537 AB033536	AL117264	043398	AE205377		926	AY028699	AC073405	AX007545	093048	AF131222	AF339747	AB023482	L27821	AB041503	X12531	AB041504	69000	028007	020948	AP001551	Z73295	AF142596	U82481	AF220603	059316	AJ245479	M97667	AF249318	AF244890	2F244889	1000
AAD17230.1 CAA09935.1	BAB17624.1 BAA13021.1 AAF27916.1	BAB19880.1 BAB17626.1 BAB17625.1	CAB55389.1	AAB67835.1	AAE12877.1	CAA06853.1	SEO ID NO.	AAK21965.1	AAG03090.1	AAG16628.1	AAB61708.1	AAF43496.1	AAK11674.1	BAA78764.1	AAA33915.1	BAA94509.1	CAA73134.1	BAA94510.1	CAB51834.1	AAC61805.1	AAC23542.1	BAA92954.1	CAA97692.1	AAF66615.1	AAB93834.1	AAE76313.1	AAB47421.1	CAB89179.1	AAA33008.1	AAF91337.1	AAF91324.1	AAF91323.1	

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Malus x domestica Daucus carota Glycine max	Ipomoea nil	Glycine max	Glycine max	Ipomoea nil	Glycine max	Brassica napus	Oryza sativa	Pinus sylvestris	Oryza sativa	Ipomoea nil	Glycine max	Glycine max	Oryza sativa	Lycopersicon esculentum	Nicotiana tabacum	Oryza sativa	Glycine max	Oryza sativa			Cyamopsis tetragonoloba	Pisum sativum	Cyamopsis tetragonoloba	Pisum sativum				Nicotiana tabacum			Nicotiana benthamiana	Nicotiana tabacum	Nicotiana tabacum	Pisum sativum	Nicotiana tabacum	Pisum sativum	Oryza sativa	Populus nigra
AF053127 U93048 AF244889	U77888	AF244890	AF244888	077888	AF197947	AX028699	AC073405	AJ250467	AF119222	077888	AF249318	AE249317	L27821	U28007	AF302082	AP000559	AF197946	AP000391		940	AJ005082	U31544	AJ005081	AB059568		941	S64617	AF085197	AE038875	AB025029	AF305075	AJ012662	AF104412	X16796	X18135	AB008186	X54046	AB041506
AAC36318.1 AAB61708.1 AAF91323.1	AAG52992.1	AAF91324.1	AAF91322.1	AAB36558.1	AAF59906.1	AAK21965.1	AAG03090.1	CAC20842.1	AAD27675.1	AAG52994.1	AAF91337.1	AAF91336.1	AAA33915.1	AAC61805.1	AAG25966.1	BAA84787.1	AAF59905.1	BAA83373.1		SEQ ID NO.	CAA06339.1	AAA86532.1	CAA06338.1	BAB40967.1		SEQ ID NO.	AAB27811.1	AAC34126.1	AAC27992.1	BAA76349.1	AAG24908.1	CAA10108.1	AAD19905.1	CAA76392.1	CAA77062.1	BAA33151.1	CAA37979.1	BAA94512.1
Oryza sativa Lycopersicon esculentum		Nicotiana tabacum	Zea mays	Petunia x hybrida	Verbena x hybrida	Brassica napus	Perilla frutescëns	Citrus unshiu	Perilla frutescens	Scutellaria baicalensis	Dorotheanthus bellidiformis	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Lycopersicon esculentum	Petunia x hybrida	Sorghum bicolor	Vitis vinifera	Vitis labrusca x Vitis vinifera	Vitis vinifera	Vitis vinifera	Gentiana triflora	Vitis labrusca x Vitis vinifera	Forsythia x intermedia	Vitis vinifera	Perilla frutescens	Phaseolus lunatus	Ipomoea batatas	Ipomoea purpurea				Lycopersicon esculentum	Zea mays	Lycopersicon esculentum	Lycopersicon esculentum	Petunia integrifolia
AB056061 X71900	938	AF190634	L34847	AB027455	AB013598	AF287143	AB013596	AB033758	AB013597	AB031274	X18871	032644	032643	AF346431	AF346432	X85138	AB027454	AF199453	AF000372	AB047090	AB047095	AB047093	D85186	AB047091	AF127218	AE000371	AB002818	AE101972	AB038248	AE028237	X77464		939	AF243040	AF243041	U58474	058473	L27341
BAB32869.1 CAA50719.1	SEQ ID NO.	AAF61647.1	AAA59054.1	BAA89009.1	BAA36423.1	AAE98390.1	BAA36421.1	BAA93039.1	BAA36422.1	BAA83484.1	CAB56231.1	AAB36653.1	AAB36652.1	AAK28303.1	AAK28304.1	CAA59450.1	BAA89008.1	AAF17077.1	AAB81683.1	BAB41017.1	BAB41022.1	BAB41020.1	BAA12737.1	BAB41018.1	AAD21086.1	AAB81682.1	BAA19659.1	AAD04166.1	BAA90787.1	AAB86473.1	CAA54614.1		SEQ ID NO.	AAK28345.1	AAK28346.1	AAC12254.1	AAC12253.1	AAA33715.1

		308
Lycopersicon esculentum Lupinus luteus Lupinus luteus Solanum tuberosum subsp. Zea mays Zea mays Euphorbia esula Oryza sativa Solanum commersonii	Brassica napus Chlamydomonas reinhardtii Oryza sativa Capsicum annuum Vicia faba Pseudotsuga menziesii Digitalis lanata Nicotiana tabacum	Coix lacryma-jobi Zea mays Zea mays Ipomoea. batatas Castanea sativa Triticum aestivum Triticum aestivum Glycine max Hellanthus annuus Glycine max Carica papaya Lycopersicon esculentum Lycopersicon esculentum Oryza Oryza sativa Sesamum indicum Oryza sativa Ambrosia artemisiifolia
M55019 Y16088 AF178458 AF126551 M55021 X68678 AF242312 L29469 U92087	M55018 AF052206 I,29471 AF291180 I,32095 AJ132763 X97255	944 - AB037156 - D10622 - D38130 - AF117334 - AJ224331 - AB038394 - AB039673 - D31700 - AB039673 - D64115 - X71124 - AF198389 - AF198388 - AF198588 - AF198588 - AF198588 - AF198588
AAA63543.1 CAA76054.1 AAF00471.1 AAD22975.1 tuberosum AAA63403.1 CAA48638.1 AAF65770.1 AAB51386.1	AAA62706.1 AAA62704.1 AAA61536.1 AAG01536.1 AAA64430.1 CAA10766.1 CAA78459.1	SEQ ID NO. BAB21558.1 BAA01472.1 BAA01327.1 AAD13812.1 CAA11899.1 BAB18766.1 BAB18766.1 BAA19608.1 BAA19610.1 CAA50437.1 AAF23126.1 AAE24010.1 AAB24010.1 AAB24010.1 AAB33911.1 AAB33911.1
Catharanthus roseus Zea mays Zea mays Daucus carota Glycine max Tetraselmis chui Dunaliella tertiolecta Daucus carota Daucus carota Oryza sativa	Zea mays Zea mays Triticum aestivum Avicennia marina Nicotiana tabacum Nicotiana tabacum Zea mays Pisum sativum	Lycopersicon esculentum Mesembryanthemum crystallinum Lycopersicon esculentum Catharanthus roseus Oryza sativa Oryza sativa Oryza sativa Brassica oleracea Lycopersicon esculentum Pseudotsuga menziesii Lycopersicon esculentum Mesembryanthemum crystallinum Triticum aestivum Picea mariana Oryza sativa Glycine max Phaseolus vulgaris Catharanthus roseus Digitalis lanata
X55052 X79065 U87949 X62976 X55706 AF012212 AF034201 D10555 D10556	942 AF032468 AJ002959 M62720 AF262934 AB026055 AB026056 AF034946 L29077	AF176040 L23762 AF196040 L23762 AF091621 AF008910 U15971 AF008910 U17250 X82938 AJ131733 AY004247 AF165420 M28059 AF051240 D17786 AF180143 AF180143 X74403 X85185 Y08273
CAA38893.1 CAA55669.1 AAD10528.1 CAB56779.1 CAA39239.1 AAB81177.2 AAB87568.1 BAA01412.1 BAA20971.1	SEQ ID NO. AAC12662.1 CAA05772.1 AAA34310.1 AAF73016.1 BAB40310.1 AAB88617.1 AAA64427.1	

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Parthenium argentatum Zea mays Glycine max		Zea mays Nicotiana plumbaginifolia Nicotiana tabacum Zea mays	Petunia x hybrida Coccomyxa sp. PA Alopecurus myosuroides Zea mays Alopecurus myosuroides Alopecurus myosuroides	Silene vulgaris Silene vulgaris Alopecurus myosuroides Persea americana Oryza sativa Zea mays Zea mays Triticum aestivum	Zea mays Zea mays Oryza sativa Datura stramonium Datura stramonium Solanum tuberosum
X78213 Y07959 947 AF243378	AF239927 AF243379 X58390 M64268 AF263737 X78203 AF243377 AF002692	AJ010296 Z71749 D10524 AJ010295	AFZ43380 Y07721 U42463 AJ010452 AFZ44682 AJ010451	M84968 M84968 AJ010453 AF133894 AF062403 M16902 AF184059	112679 112679 12679 120478 120473 120473
	AAF64449.1 AAG34814.1 CAA41279.1 AAA33277.1 AAF72197.1 CAA55039.1 AAB65163.1	CAB38119.1 CAA96431.1 BAA01394.1 CAB38118.1	CAA68993.1 AAC50036.1 CAA09191.1 AAG34825.1 CAA09190.1 CAA09193.1	AAA33930.1 AAA33930.1 CAA09192.1 AAF61392.1 AAC64007.1 AAA33469.1 AAA33470.1 AAD56395.1	
Artemisia vulgaris Triticum aestivum Solanum tuberosum Triticum aestivum Lycopersicon esculentum	Triticum aestivum Citrus x paradisi Lycopersicon esculentum Pisum sativum Pisum sativum Tripsacum dactyloides		Ipomoea trifida Ipomoea trifida Pisum sativum Tripsacum dactyloides Glycine max Picea abies	Zea mays Zea mays Chlamydomonas reinhardtii Zea mays Oryza sativa Zea mays Zea mays	Zea mays Zea mays Glycine max Lupinus luteus Zea mays Euphorbia esula Zea mays
AF143677 AB038393 L16450 AB038391 AF198390	AB038395 AF283536 945 U21801 AF053638 AF097651 U89270	AJ223177 AJ223177 AF072447 AF072449 120621	AF072450 AF072448 AF053639 U89271 AF169018 X74115	946 U62752 U40147 X66411 U62750 AP001550 U62749 X86553	U62748 U62748 X93587 U62751 AF227622 U62753
AAD33907.1 BAB18767.1 AAA16120.1 BAB18765.1 AAF23128.1	नन ४ननन	CAA11154.1 CAA11153.1 AAC35340.1 AAC35342.1 AAC37345.1		SEQ ID NO. 3 AAB71079.1 AAA91168.1 CAA47042.1 AAD11447.1 BAA92988.1 AAD11446.1 CAA60251.1	AAC49390.1 AAD11459.1 AAB63814.1 CAA63786.1 AAB71078.1 AAF34767.1 AAB71080.1

Mesembryanthemum crystalli Fagus sylvatica Medicago sativa Lotus japonicus Lotus japonicus Nicotiana tabacum	ryan ryan sylv ryan ryan sylv sati	Nicotiana tabacum Nicotiana tabacum Citrus limon Citrus lamon Brassica napus Brassica napus Brassica napus Brassica napus	Populus tremula x Populus Zea mays Prunus avium Petroselinum crispum Potroselinum crispum
Mesembryar Fagus sylv Medicago s Lotus japo Lotus japo Nicotiana	Mesembry Zea mays Mesembry Fagus sy Mesembry Fagus sy Oryza sa' Mesembry	Nicotiana Nicotiana Citrus lim Brassica n Brassica n Brassica n Brassica n Brassica n	Populus Zea mays Prunus a Petrosel Petrosel
AF079355 AJ298988 Y11607 AF092431 AF092432 AJ277086	AF075579 AF213455 AF075580 AJ277743 AF075582 AJ298987 AF075603 AF075603 AF075581 U81960	AJ005899 AJ005900 AF184068 964 Y10156 AJ223307 Y10155 U39289	970 AF115543 . AJ011794 972 AJ004916 AF012867 AF012866 973 AC051634
AAC35951.1 CAC09576.1 CAA72341.1 AAD17804.1 AAD17805.1 CAC10358.1	AAC36697.1 AAC36698.1 CAB90633.1 AAC36700.1 CAC09575.1 AAC26828.1 AAC26828.1 AAC36699.1 AAC36699.1	SEQ 1D NO. CRA06756.1 CRA06757.1 AAD56039.1 SEQ ID NO. CRA71238.1 CRB62165.1 CRA71237.1 AAC49181.1 AAC49182.1	SEQ ID NO. AAF21982.1 tremuloides CAB65535.1 SEQ ID NO. CAA06216.1 AAB69323.1 AAB69322.2 SEQ ID NO. SEQ ID NO.
Hyoscyamus niger Hyoscyamus niger Solanum tuberosum Solanum tuberosum Datura stramonium Hyoscyamus niger	Cuphea lanceolata Brassica napus Brassica napus Nicotiana tabacum Oryza sativa Nicotiana tabacum Petunia x hybrida Oryza sativa Brassica napus Medicago truncatula	ប៊ុក្កីស៊ូកីក	Zea mays Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Cryza sativa Cicer arietinum Fagus sylvatica
D88156 AB026544 AJ245634 AJ292343 LZ0474 LZ0485 AB026545	X64566 X64463 S60064 Y13861 AJ003025 Y13862 AJ003124 AF093628 X95462 L22766	949 AF133267 AF136579 AF246266 AF065444 AF246266 AF136580 AY007281	AF058757 954 AF211532 AB045121 AB023482 AP000616 AB026262 958 AF097667 AJ277744
BAAB5844.1 BAAB58307.1 CAC19810.1 AAA33282.1 AAB09776.1 BAAB5845.1	CAA45866.1 CAA45793.1 AAB20114.2 CAA74176.1 CAA74177.1 CAA7177.1 CAA64729.1 AAB05206.1		AAC18941.1 SEQ ID NO. 9 AAG43550.1 BAA96875.1 BAA78746.1 BAA85438.1 BAA77204.1 SEQ ID NO. 9 AAD11430.1 CAB90634.1

SEQ ID NO. 9 AAB88295.1	974 AF024512	Oryza sativa	SEQ ID NO. AAC09416.1	978 M68929	Mitochondrion Marchantia
SEQ ID NO.	916		•		
3255	AB017159	Daucus carota		981	
AAA82743.1	U19481	Citrus maxima	AAC99620.1	AF040700	Oryza sativa
CAA59008.1	X84226	Nicotiana tabacum			
CAA52976.1	X75082	Solanum tuberosum		983	
BAA82390.1	AP000367	Oryza sativa	AAA74715.1	M64682	Spinacia oleracea
CAA59010.1	X84228	Beta vulgaris	AAA34041.1	M57413	Spinacia oleracea
CAA59009.1	X84227	Populus x generosa	CAA40019.1	X56691	Spinacia oleracea
BAA07328.1	D38132		CAA28130.1	X04465	Plastid Marchantia polymor
SEQ ID NO.	716			984	
AAG49341.1	AF319457	Petroselinum crispum	BAA88222.1	AB028650	Nicotiana tabacum
AAB71526.1	U94781	Helianthus annuus	CAA78386.1	Z13996	Petunia x hybrida
AAK21311.1	AF338254	Petroselinum crispum	CAA78387.1	Z13997	Petunia x hybrida
AAD31926.1	AF147738	Zea mays	CAA64615.1	X95297	Lycopersicon esculentum
AAB93521.1	094783	Helianthus annuus	CAB43399.1	AJ006292	Antirrhinum majus
AAF43440.1	AF233886	Vallisneria gigantea	AAK19616.1	AF336283	
AAD17931.2	AF104924	Zea mays	AAK19611.1	AF336278	
AAB71529.1	094785	Helianthus annuus	CAA64614.1	X95296	Lycopersicon esculentum
BAA87057.1	AB034154	Chara corallina	CAA72218.1	X11415	Oryza sativa
BAB03273.1	AB007459	Chara corallina	CAA67575.1	X99134	Lycopersicon esculentum
AAB71527.1	U94782	Helianthus annuus	CAA72217.1	X11414	Oryza sativa
AAB71528.1	094784	Helianthus annuus	CAA66952.1	X98308	Lycopersicon esculentum
AAC27525.1	AF077352	Chlamydomonas reinhardtii	BAA88224.1	AB028652	Nicotiana tabacum
AAB53062.1	U94398	Acetabularia cliftonii	BAA88221.1	AB028649	Nicotiana tabacum
AAD34597.1	AF147739	Zea mays	CAA72187.1	X11352	Oryza sativa
AAB53061.1	U94397	Acetabularia cliftonii	BAA23337.1	D88617	Oryza sativa
AAF43441.1	AF233887	Vallisneria gigantea	BAA81733.2	AB029162	Glycine max
CAA47477.1	x67103	Anemia phyllitidis	BAA81732.1	AB029161	Glycine max
CAA47476.1	X67102	Anemia phyllitidis	BAA81731.1	AB029160	Glycine max
AAA92114.1	048788	Gossypium hirsutum	BAA81730.1	AB029159	Glycine max
AAA92121.1	U48786	Vigna mungo	BAA81736.1	AB029165	Glycine max
AAA92117.1	048787	Triticum aestivum	CAA72185.1	Y11350	Oryza sativa
AAA92111.1	048789	Azolla rubra	AAG13574.1	AC037425	Oryza sativa
AAA92120.1	048785	Vigna mungo	AAB41101.1	072762	
AAA92119.1	048782	Trifolium subterraneum	BAA88223.1	AB028651	Nicotiana tabacum
AAA92115.1	U48790	Nitella cristata	CAA50221.1	X70876	Hordeum vulgare

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		312	
Daucus carota Matthiola incana Medicago sativa Petunia x hybrida Petunia x hybrida Callistephus chinensis Vitis vinifera Hordeum vulgare Daucus carota	Perilla frutéscens Daucus carota Ipomoea nil Daucus carota Medicago truncatula Iycopersicon esculentum Lycopersicon esculentum Definia y hybrida	Lycopersicon esculentum Malus x domestica Hordeum vulgare Oryza sativa Hordeum vulgare Sorghum bicolor	Lycopersicon esculentum Hordeum vulgare Sorghum bicolor Hordeum vulgare Solanum berthaultii Solanum berthaultii Lycopersicon pennellii Solanum berthaultii Solanum berthaultii Hycopersicon pennellii Sorghum bicolor Matricaria chamomilla Hordeum vulgare Oryza sativa Hordeum vulgare
AF184270 X72594 X78994 AF022142 X60512 X72593 X75966 X58138 AF184273	AB003779 AF184274 D83041 988 U83921 AF134835 AB022687 AB022686	AF016845 AF220203 989 Y09602 X78878 AP002539 X78877 AF061282	AF242849 Y09603 AF061282 X78876 AF006080 AF06078 AF248647 AF061282 AF141384 J03897 D17586
AAD56577.1 CAA51192.1 CAA55628.1 AAC49929.1 CAA43027.1 CAA51191.1 CAA53580.1 CAA41146.1	BAA20143.1 AAD56581.1 BAA21897.1 SEQ ID NO. AAB63030.1 AAF37386.1 BAA76896.1 BAA76896.1		AAF44708.1 CAA70816.1 AAD22151.1 CAB58992.1 AAD01265.1 AAD01264.1 AAD01264.1 AAD22164.1 AAD22164.1 AAD32940.1 BAA04510.1
Gossypium hirsutum Oryza sativa Zea mays Hordeum vulgare Hordeum vulgare Zea mays Oryza sativa Lycopersicon esculentum	Digitalis lanata Catharanthus roseus Oryza sativa Chlamydomonas reinhardtii Oryza sativa Zea mays Solanum tuberosum subsp.	Phaseolus vulgaris Lycopersicon esculentum Oryza sativa Lupinus luteus Lupinus luteus Euphorbia esula Solanum commersonii Brassica napus Vicia faba	Pseudotsuga menziesii Capsicum annuum Digitalis lanata Nicotiana tabacum Brassica napus Oryza sativa Malus sp. Bromheadia finlaysoniana Dianthus caryophyllus Dianthus caryophyllus
AF336286 D88618 AF210616 X70879 X70877 M73028 X96749	985 X08273 X85185 L29469 AF052206 L29470 X68678 AF126551 M55021	X74403 M55019 L29471 AF178458 X16088 AF242312 U92087 M55018	AJ132/63 AF291180 X97255 Z14081 987 AJ237848 AB026295 X69664 X89199 U82432 X70378
AAK19619.1 BAA23338.1 AAG36774.1 CAA50224.1 CAA5022.1 AAA33500.1 CAA65525.1	SEQ ID NO. CAA69598.1 CAA59468.1 AAA57045.1 AAA57046.1 CAA48639.1 AAD22975.1 tuberosum AAA63403.1	CAA52414.1 AAA63543.1 AAA57044.1 AAF60471.1 CAA76054.1 AAE65770.1 AAB51386.1 AAA62706.1	CAA10/66.1 AAG01536.1 CAA5889.1 CAA78459.1 SEQ. ID NO. CAC14568.1 BAA81862.1 CAA49353.1 CAA49353.1 CAA49839.1 CAA49839.1

		313	70
Zea mays Zea mays Catharanthus roseus Avena sativa Secale cereale Trifolium repens Avena sativa Manihot esculenta	Brassica napus Brassica napus Brassica nigra Cicer arietinum Oryza sativa	Musa acuminata Fragaria x ananassa Vitis vinifera Musa acuminata Zinnia elegans Musa acuminata Medicago sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Musa acuminata Pinus contorta Dalbergia cochinchinensis Polygonum tinctorium Costus speciosus Rauvolfia serpentina Secale cereale Prunus avium Cucurbita pepo Prunus serotina Sorghum bicolor Manihot esculenta
U44773 X74217 AF112888 AF082991 AF293849 X56733 X78433 U95298	221977 X82577 U72154 AJ005950 U28047	1004 AF206320 U63550 AF243475 AF206319 Y09541 X92943 U41472 X67158 X61101 X67159	1005 AF321287 AF072736 AF163097 AB003089 D83177 AF149311 AF293849 U39228 AF170087 AF221526 U33817
AAB03266.1 CAA52293.1 AAF28800.1 AAD02839.1 AAG00614.1 CAA40057.1 CAA55196.1 AAB71381.1	CAA79989.2 CAA57913.1 AAB38784.1 CAC08209.1 AAA84906.1	SEQ ID NO. AAF19196.1 AAB71208.1 AAF63756.1 AAF19195.1 CAA63496.1 AAA86241.1 CAA47630.1 CAA47631.1 CAA47631.1	SEQ ID NO. AAK07429.1 AAC69619.1 AAF04007.1 BAA11831.1 BAA11831.1 AAG00614.1 AAG25897.1 AAG25897.1 AAG25897.1 AAG25897.1
Oryza sativa Oryza sativa Oryza sativa Oryza sativa Cicer arietinum Vigna radiata Vigna sativum	Taxus canadensis Brassica napus	Brassica napus Oryza sativa Nicotiana tabacum Solanum tuberosum Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Prunus avium Costus speciosus	0 446444664644
D17587 D10985 AP002839 AP001633 AJ271659 U49741 U49382	990 AF081514 991 AF109392	995 X59970 AP000836 X96727 X67310 Y14432 Y14431 Y16126 U39228 U39228	AF163097 AF221526 AF149311 AF170087 AB003089 X94986 S35175 U44087 U33817 AF072736 X56734 L41869 U25157
BAA04511.1 BAA01757.1 BAB19126.1 BAA94235.1 CAB71127.1 AAA92064.1 AAA92062.1	SEQ ID NO. 9 AAD16018.1 SEQ ID NO. 9 AAF21901.1	SEQ ID NO. 5 CRA42596.1 BRA88179.1 CRA65502.1 CRA747720.1 CRA74777.1 CRA74776.1 CRA74776.1 SEQ ID NO. 1 SEQ ID NO. 1 SEQ ID NO. 1 SEQ ID NO. 1	AAF04007.1 AAF34650.1 AAF03675.1 AAG25897.1 BAA78708.1 CAA4442.1 AAB22162.1 AAB22162.1 AAC9177.1 AAC69619.1 CAA40058.1 AAA65946.1 AAA65946.1

Physcomitrella patens Oryza sativa Daucus carota Glycine max	Zea mays Lycopersicon esculentum Pisum sativum Lycopersicon esculentum Mesembryanthemum crystalli	Brassica oleracea Catharanthus roseus Oryza sativa Avicennia marina Triticum aestivum Nicotiana tabacum	Lycopersion esculentum Lycopersion esculentum Cicer arietinum Zea mays Oryza sativa Zea mays Oryza sativa Zea mays Mesembryanthemum crystallinum Glycine max Lycopersicon esculentum Prunus armeniaca Triticum aestivum Pseudotsuga menziesii Picea mariana Glycine max Pimpinella brachycarpa Pimpinella brachycarpa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Glycine max
AB028077 AF145730 D26578 X92489	1007 AF034946 L23762 L29077 X73419 AF176040	017250 AF091621 D17786 AF262934 M62720 AB026055	A5020030 X82938 AJ005348 A5032468 A5001081 AJ002959 AF165420 AF180143 AF004247 AF008910 M28059 AJ131733 AF051240 X92489 X9449 X9449 X9449 X9449 X9449 X95193 X95193 X96681 AF211193 AC079890 U30475
BAA93465.1 AAD37699.1 BAA21017.1 CAA63222.1	SEQ ID NO. AAB88617.1 AAA34125.1 AAA64427.1 CAA51821.1 AAD51109.1	AAAB6089.1 AAD42941.1 BAA21006.1 AAF73016.1 AAA34310.1 BAB40310.1	
Hordeum vulgare Manihot esculenta Avena sativa Zea mays Zea mays	Zea mays Zea mays Zea mays Catharanthus roseus Trifolium repens Avena sativa Trifolium repens	Brassica napus Manihot esculenta Brassica napus Brassica nigra Oryza sativa Cicer arietinum	Oryza sativa Oryza sativa Glycine max Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Physcomitrella patens Pimpinella brachycarpa Lycopersicon esculentum Pimpinella brachycarpa Daucus carota Hellanthus annus Prunus armeniaca Craterostigma plantagineum Oryza sativa Physcomitrella patens Zinnia elegans Daucus carota Physcomitrella patens Zinnia elegans Daucus carota
L41869 X94986 AF082991 U44773 U44087	X74217 U33816 U25157 AF112888 X56734 X78433	221977 U95298 X82577 U72154 U28047 AJ005950	1006 AF139210 AF145729 AF144278 AF145726 AF211193 AC079890 X96681 AB028078 X95193 X91212 X94375 D26576 AF339748 AF139497 AJ005833 AF145731 AB028074 AB028074 AB028075 AB028075
AAA87339.1 CAA64442.1 AAD02839.1 AAB03266.1 AAD09850.1	CAA52293.1 AAD10503.1 AAA65946.1 AAF28800.1 CAA40058.1 CAA5196.1 CAA5196.1	CAA79989.2 AAB71381.1 CAA57913.1 AAB38784.1 AAA84906.1 CAC08209.1	SEQ ID NO. 1 AAG43283.1 AAD37698.1 AAE01765.1 AAE19980.1 AAE19980.1 AAE19980.1 CAA65456.2 BAA93466.1 CAA64491.1 CAA64491.1 CAA64491.1 CAA6525.1 AAA63768.2 AAB37700.1 BAA93462.1 BAA93462.1 BAA93462.1 BAA93462.1 BAA93462.1

																			31	5																				
Beta vulgaris	Vigna radiata	Vigna radiata	Lens culinaris	Glycine max	Glycine max	Glycine max	Pisum sativum	Lupinus albus	Beta vulgaris	Trifolium repens	Lens culinaris	Trifolium repens	Catharanthus roseus	Solanum melongena	Petunia x hybrida	Sorghum bicolor	Asparagus officinalls			Brassica rapa	Brassica rapa	Vigna unguiculata	Glycine max	Glycine max	Lycopersicon esculentum	Zea mays	Zea mays	Zea mays	Lycopersicon esculentum	Ricinus communis	Glycine max	Oryza sativa	Manihot esculenta	Zea mays	Castanea sativa	Sorghum bicolor	Coix lacryma-jobi	Helianthus annuus	Oryza sativa	Oryza
AF195817	AF195806	AF195809	AF195805	AF195818	AF022462	AF195819	AF195812	AF195813	AF195816	AF195815	AF195804	AF195814	AJ238612	X70824	AF155332	AF029858	AB037244		1010	L41355	051119	221954	D64115	D31700	AF198389	X87126	D63342	D10622	AF198388	Z49697	051853	AP001073	AF265551	D38130	AJ224331	X87168	AB037156	AB039673	J03469	S49967
AAF34538.1	AAF34527.1	AAF34530.1	AAF34526.1	AAF45142.1	AAB94591.1	AAF45143.1	AAF34533.1	AAF34534.1	AAF34537.1	AAF34536.1	AAF34525.1	AAF34535.1	CAB56503.1	CAA50155.1	AAD56282.1	AAC39318.1	BAB40323.1		SEQ ID NO.	AAC37479.1	AAA96316.1	CAA79954.1	BAA19610.1	BAA19608.1	AAF23127.1	CAA60610.1	BAA09666.1	BAA01472.1	AAF23126.1	CAA89697.1	AAA97905.1	BAA69582.1	AAF72202.1	BAA07327.1	CAA11899.1	CAA60634.1	BAB21558.1	BAA95416.1	AAA33903.1	AAB24010.1
\sim		Oryza sativa	Craterostigma plantagineum	U)	m	Craterostigma plantagineum	Daucus carota	Physcomitrella patens		Lycopersicon esculentum	Daucus carota	Daucus carota	O)	Physcomitrella patens		Physcomitrella patens	Glycine max	Physcomitrella patens	Zinnia elegans	Physcomitrella patens		=			•		Glycine max	Glycine max	Glycine max	Antirrhinum majus	Glycyrrhiza echinata	Glycyrrhiza echinata	Torenta hybrida	Lotus japonicus	Trifolium pratense	Vigna radiata	Vigna radiata	Trifolium pratense	Glycine max	Glycyrrhiza echinata
AB028075	AF145726	AF145731	AJ005833	AF145727	AB042767	AJ005820	D26573	AB028074	AF145729	X94947	026578	D26575	AF184277	AB028080	D26576	AB028079	AF184278	AB028073	AB042769	AB028076	D26574	AB028078	AB028072	AF145728		1009	D83968	D86351	AF135485	AB028151	AB001380	AB022733	AB028152	AB024931	AF195811	AF195808	AF195807	AF195810	AF135484	AB023636
BAA93463.1	•	AAD37700.1	CAA06728.1	•	BAB18169.1	CAA06717.1	BAA05622.1	BAA93462.1	AAD37698.1	CAA64417.1	BAA21017.1	BAA05624.1	AAF01764.2	BAA93468.1	BAA05625.1	BAA93467.1	AAE01765.1	BAA93461.1	BAB18171.1	BAA93464.1	BAA05623.1	BAA93466.1	BAA93460.1	AAD37697.1		SEQ ID NO. 1	BAA12159.1	BAA13076.1	AAD38930.1	BAA84071.1	BAA22423.1	BAA74466.1	BAA84072.1	BAA93632.1	AAF34532.1	AAF34529.1	AAE34528.1	AAF34531.1	AAD38929.1	BAA76380.1

w. 316	
Cucumis melo var. reticula Cucumis sativus Malus x domestica Musa acuminata Mangifera indica Pelargonium x hortorum lycopersicon esculentum Lycopersicon esculentum Rumex palustris Brassica oleracea Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Citrus sinensis Dianthus caryophyllus Lycopersicon esculentum Citrus sinensis Dianthus caryophyllus Lycopersicon esculentum Nicotiana tabacum Zea mays Lycopersicon esculentum Cucumis sativus Prunus mume Prunus mume Prunus mume Prunus mume Rosa hybrid cultivar	Glycine max Glycine max Glycine max Euphorbia esula Glycine max Zea mays Zea mays Zea mays
AB055228 AB026498 AF032448 AF1113748 AF141929 AF141928 AF043084 U41103 U63291 Y08359 AF047476 AF0272727 AF0243085 U47279 AF026267 AF118843 AF026267 AB031029 AB031029 AB031029 AB031028	1013 AF243362 AF243363 AF243368 AF243366 AF243361 AF243372 AF2443375 AF244701 AF244701 AF244688 AF048978
BAB18937.1 BAA85817.1 AAC31123.1 AAF08300.1 AAF08300.1 AAD37577.1 AAD37576.1 AAA85479.1 AAB68819.1 CAA69646.1 AAC02213.1 AAB97160.1 AAC39497.1 AAB97160.1 AAC3214.1 AAB3386.1 CAB76929.1 BAA96745.1 AAD31396.1 AAD31396.1 BAA931397.1 BAA931397.1 BAA90552.1 BAA90552.1	SEQ ID NO. AAG34797.1 AAG34803.1 AAG34804.1 AAG34804.1 AAG34804.1 AAG34807.1 AAG34810.1 AAG34810.1 AAG34810.1 AAG34810.1 AAG34810.1 AAG34831.1 AAG34831.1
Oryza sativa Ipomoea batatas Ipomoea batatas Glycine max Pyrus communis Sesamum indicum Glycine max Hordeum vulgare Ambrosia artemisiifolia Dianthus caryophyllus Artemisia vulgaris Triticum aestivum Carica papaya Dianthus caryophyllus Triticum aestivum Carica papaya Dianthus caryophyllus Triticum aestivum Carica papaya Dianthus caryophyllus Triticum aestivum Caricum aestivum Cryza sativa	Brassica oleracea Carica papaya Pisum sativum Pisum sativum Vigna radiata Passiflora edulis Cucumis melo var. reticulatus Cucumis sativus Phalaenopsis sp. 'True Lady' Oryza sativa Nicotiana tabacum Solanum tuberosum Prunus persica Passiflora edulis
U54702 AF241536 AF117334 U51854 U82220 AF240007 U51855 Y12068 L16624 AY028994 AF143677 AB038392 X71124 AF064734 AB038393 X57658 J05595 AB038395 AF083253 AF198390 AF283536	1011 AF047477 AF311942 AF039746 AJ005829 AF098272 AB015497 AB026499 AF055894 AF013979 AF039921 AF039921 AF031938
AAB66355.1 AAF64480.1 AAD13812.1 AAA97906.1 AAA97907.1 CAA72790.1 AAA32672.1 AAA32672.1 AAA32672.1 AAA33907.1 BAB18766.1 CAA50437.1 AAC69278.1 BAB18766.1 CAA40860.1 AAA33911.1 BAB18765.1 AAA33911.1 BAB18765.1 AAA33911.1 BAB18765.1 AAA33911.1 BAB18765.1	SEQ ID NO. 1 AAC31157.1 AAG41977.1 AAB94773.1 CAA06723.1 AAD03598.1 BAA37137.1 BAA37135.1 BAB13735.1 BAAB5618.1 AAB56899.1 AAB72193.1 AAB96765.2 AAD12777.1 BAAB728893.1

AAG34808.1	AF243373	Glycine max	SEQ ID NO. 1	1018	
AAG34837.1	AF244694	Zea mays	CAA87068.1	246944	Citrus sinensis
AAG34800.1	AF243365	Glycine max	AAK15005.1	AF233452	Impatiens balsamina
AAG34836.1	AF244693	Zea mays	AAB61593.1	AF003125	Mesembryanthemum crystalli
CAA04391.1	AJ000923	Carica papaya	AAA33462.1	M73828	Zea mays
CAA71784.1	X10820	Glycine max	AAA34028.1	M35660	Spinacia oleracea
AAG34849.1	AF244706	Zea mays	AAC49171.1	029516	Chlamydomonas reinhardtii
AAA68430.1	J03679	Solanum tuberosum	AAA33085.1	L10349	Chlamydomonas reinhardtii
AAG34802.1	AF243367	Glycine max	CAA26281.1	X02432	Silene latifolia subsp. al
CAC24549.1	AJ296343	Cichorium intybus x Cichorium	AAA33665.1	M31713	Pisum sativum
endivia			CAA52980.1	X75089	Triticum aestivum
CAA09187.1	AJ010448	Alopecurus myosuroides	AAA33461.1	M73831	Zea mays
AAF22518.1	AF118925	Papaver somniferum	BAA32348.1	AB016810	Zea mays
CAA09188.1	AJ010449	Alopecurus myosuroides	BAA06456.1	D30794	Oryza sativa
AAE22517.1	AF118924	Papaver somniferum	AAA33460.1	M73830	Zea mays
AAF22647.1	AF193439	Lycopersicon esculentum	AAA33459.1	M73829	Zea mays
			BAA06436.1	D30763	Oryza sativa
SEQ ID NO.	1016		CAA99756.1	275520	Lycopersicon esculentum
AAC36698.1	AF075580	Mesembryanthemum crystallinum	BAA19865.1	D83660	Oryza sativa
CAA72341.1	Y11607	Medicago sativa	AAD02175.1	AF039662	Capsicum annuum
AAG43835.1	AF213455	Zea mays	BAA90760.1	AB038037	Ipomoea nil
AAD17804.1	AF092431	Lotus japonicus	CAA73265.1	X12734	Physcomitrella patens
AAD17805.1	AF092432	Lotus japonicus	AAB65699.1	AF010320	Oryza sativa
AAC36697.1	AE075579	Mesembryanthemum crystallinum			
CAB90633.1	AJ277743	Fagus sylvatica		1020	
CAC10358.1	AJ277086	Nicotiana tabacum	AAE74567.1	AF215853	Solanum tuberosum
CAC10359.1	AJ277087	Nicotiana tabacum	AAF74566.1	AF215852	Nicotiana tabacum
AAC36700.1	AF075582	Mesembryanthemum crystallinum	AAF74565.1	AF215851	Spinacia oleracea
CAC09575.1	AJ298987	Fagus sylvatica	AAF74568.1	AF215854	Zea mays
CAB90634.1	AJ277744		AAG43998.1	AF215837	Apium graveolens var. dulce
AAC35951.1	AF079355	ryanthemum	BAB19864.1	AB052885	Oryza sativa
AAD11430.1	AF097667	Mesembryanthemum crystallinum	CAA09419.1	AJ010942	Lycopersicon esculentum
AAB93832.1	081960	Zea mays	CAB52689.1	AJ132224	Lycopersicon esculentum
AAC26828.1	AF075603	Oryza sativa	CAA53192.1	X75440	Chlorella kessleri
AAC36699.1	AF075581	Mesembryanthemum crystallinum	CAA68813.1	X07520	Chlorella kessleri
CAC09576.1	AJ298988	Fagus sylvatica	AAA79761.1	L08196	Ricinus communis
			CAB06079.1	Z83829	Picea abies
	1017		CAB07812.1	293775	Vicia faba
CAA96516.1	271997	Medicago sativa	CAA47324.1	x66856	Nicotiana tabacum
AAB36543.1	077935	Phaseolus vulgaris	CAA39036.1	X55349	Chlorella kessleri
-			AAB06594.1	U38651	Medicago truncatula

	AJ003025 Oryza sativa U89509 Zea mays X95462 Brassica napus U89510 Hordeum vulgare 1026 AJ242531 Triticum aestivum AB030956 Oryza sativa AJ242530 Zea mays	AF000307 Brassica napus AF000305 Brassica napus AF000306 Brassica napus M84135 Flaveria chloraefolia U10275 Flaveria bidentis W10277 Flaveria bidentis	AF047428 Oryza sativa AF045571 Oryza sativa AF133118 Oryza sativa AP002539 Oryza sativa AP002521 Oryza sativa	AF243180 Lycopersicon esculentum 225471 Pisum sativum AF031195 Triticum aestivum AF093537 Zea mays
CAC19810.1 BAA85845.1 AAB09776.1 CAA45793.1 CAA45793.1 AAB20114.2 CAA74176.1 CAA05879.1	CAA05816.1 AAB82767.1 CAA64729.1 AAB82766.1 SEQ ID NO. 10 CAB51555.1 BAA90749.1 CAB51557.1	7	SEQ ID NO. 10 AAC98969.1 AAC98962.1 AAD31844.1 BAB08194.1 BAA96755.1	SEQ ID NO. 10 AAF66242.1 CAA80963.1 AAD10251.1 AAC64163.1
Vitis vinifera Ricinus communis Vitis vinifera Oryza sativa Oryza sativa Lycopersicon esculentum Oryza sativa Lycopersicon esculentum Beta vulgaris	Medicago sativa Phaseolus vulgaris Nicotiana tabacum Nicotiana tabacum Oryza sativa Nicotiana tabacum		Mesembryanthemum crystallinum Nicotiana tabacum Nicotiana tabacum Oryza sativa Datura stramonium	Datura stramonium Solanum tuberosum Hyoscyamus niger Hyoscyamus niger Datura stramonium
AJ001061 L08188 Y09590 AB052884 AB052883 AJ132225 AP000615 AJ132223	1021 271997 U77935 1022 AF211531 AF211530 AB023482 AJ299252	AF274033 AB036883 AB037183 AF071893 AF193803 AF298231 AJ251249 AJ251250 D38123	AF245119 AF211527 AF057373 AP002526 . 1025 L20475	120473 120473 120473 120474 120474
CAA04511.1 AAA79857.1 CAA70777.1 BAB19862.1 BAB19862.1 CAB52690.1 BAA85398.1 CAB52688.1	SEQ ID NO. 1 CAA96516.1 AAB36543.1 SEQ ID NO. 1 AAG43549.1 AAG43548.1 BAA78738.1 CAC12822.1	AAF76898.1 BAB16083.1 BAB03248.1 AAC24587.1 AAF01089.1 CAB96899.1 CAB96899.1 BAA07321.1	AAF63205.1 AAG43545.1 AAC62619.1 BAA99376.1 SEQ ID NO. 1 AAA33280.1	AAA33281.1 CAC34420.1 BAA13547.1 BAA85844.1 AAA33282.1

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Gossypium hirsutum Cicer arietinum Zinnia elegans	Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum	Triphysaria versicolor Oryza sativa Locobersicon esculentum		Pronus avium Nicotiana tabacum Rumex palustris	Triphysaria versicolor Zinnia elegans Lycopersicon esculentum Eustoma grandiflorum	Cicer arietinum Festuca pratensis Lycopersicon esculentum	Oryza sativa Festuca pratensis	Oryza sativa Oryza sativa Spipacia oleracea	Nicotiana tabacum Nicotiana tabacum	Chloroplast Nicotiana	Secale cereale Chloroplast Nephroselmis	Oryza sativa
AF043284 AJ291817 AF230332	AJ243340 AJ239068 AF096776	030477 AF230277 UB5246 AJ004997	AF230276 AJ000885 AF059489	AF297522 AF049354 AF167360	AF230278 AF230333 AF059488 AB049406	AJ291816 AJ276007 AF184233	A524/164 AJ276006 1047	AB022674 AB022673	X62339 X62339	S93166	X68325 AF137379	AF010581
AAC39512.1 CAC19184.1 AAF35901.1	CAB46492.1 CAB43197.1 AAC64201.1	AAB30074.1 AAF32410.1 AAB81662.1 CAA06271.2	AAF32409.1 CAA04385.1 AAD13633.1	AAG13983.1 AAC96081.1 AAD49956.1	AAF32411.1 AAF35902.1 AAD13632.1 BAB32732.1	CAC19183.1 CAC06433.1 AAG32921.1		BAA37171.1 BAA37170.1	CAA44226.1 CAA44214.1	AAB21989.1	CAA48400.1 AAD54786.1	olivacea AAB66886.1
Lycopersicon esculentum Medicago sativa subsp. x varia Spinacia oleracea	Oryza sativa Oryza sativa	Populus balsamifera subsp.	3	Zea mays	Oryza sativa	ana ana	Nicotiana tabacum Cucumis sativus Lycopersicon esculentum Striga asiatica			Finds caeda Prunus persica Incompresion esculentum		Cucumis sativus Prunus armenjaca
AF243181 AJ248323 U76296	1034 D87261 D87260	1035 AX012513	AY012515 1039	1042 X59714	1045 AP000836	1046 AF049350 AF049352	AF049351 U30460 AF184232 AF291659	AF085330 AF159563	U64891 U64890	AB029083	AF297521 AF038815	U30382 U93167
AAF66243.1 CAB65280.1 AAC32448.1	SEQ ID NO. 3 BAA23143.1 BAA23142.1	SEQ ID NO. :	ס	SEQ ID NO. CAR42234.1	SEQ ID NO. BAA88182.1		AAC96078.1 AAB37749.1 AAG32920.1 AAG01875.1	AAD47901.1 AAF21101.1	AAB40635.1 AAB40635.1	BAB19676.1	AAG13982.1 AAG13530.1	AAB37746.1 AAC33529.1

lmum imum imum	imum imum imum	שחשו שחשי שחשי שחשי שחשי שחשי שחשי שחשי	320	hondriacus hondriacus m
Linum usitatissimum Linum usitatissimum Linum usitatissimum Glycine max	Linum usitatissimum Linum usitatissimum Linum usitatissimum	Linum usitatissimum Glycine max Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum	Spinacia oleracea Spinacia oleracea Atriplex hortensis Beta vulgaris Beta vulgaris Avicennia marina	Oryza sativa Amaranthus hypochondriacus Oryza sativa Oryza sativa Amaranthus hypochondriacus Avicennia marina Hordeum vulgare Oryza sativa Nicotiana tabacum Zea mays Oryza sativa Sorghum bicolor Pisum sativum Nicotiana plumbaginifolia Apium graveolens Sorghum bicolor Zea mays
U73916 AE093647 AE093648 AE175389	U27081 AF093641 U27081	AF093642 AF175394 AF093638 AF093646 AF093640 AF093644 AF093645	1061 M31480 U69142 X69770 X58462 X58463	AB001348 AF017150 AF16265 AB044537 AF000132 AB043540 D26448 AB030939 Y09876 AF215823 AB037421 U12196 X75327 U87848 AF196292 U12195 X75326
AAB47618.1 AAD25974.1 AAD25975.1 AAG09952.1	AAA91022.1 AAD25968.1 AAA91021.1	AAD25969.1 AAG01051.1 AAD25965.1 AAD25973.1 AAD25970.1 AAD25970.1 AAD25971.1 AAD25972.1		BAA21098.1 AAB70010.1 AAE73828.1 BAB19052.1 AAB58165.1 BAB18544.1 BAA05466.1 BAA06793.1 CAA71003.1 AAG43988.1 BAA96794.1 AAC49268.1 CAA53076.1 AAC49266.1 AAC49267.1
Chlorella vulgaris Plastid Prototheca wickerhamii	Chlamydomonas reinhardtii Chlamydomonas reinhardtii Volvox carteri	Nicotiana glutinosa Solanum tuberosum Glycine max Linum usitatissimum Linum usitatissimum Linum usitatissimum	Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Solanum tuberosum Nicotiana tabacum Linum usitatissimum	Linum usitatissimum
AB001684 AJ236874 1059	AJ010110 X16619 AF233374	1060 015605 AJ009720 AF175388 AF310964 AF310966 AF310958	AF310960 AF310959 AF310961 AF310960 AJ009719 AF211528 AJ310164	AJ310153 AJ310162 AJ310151 AJ310152 AJ310152 AJ310153 AJ310153 AJ310159 AJ310159 AJ310150 AJ310150 AJ310150 AJ310150
BAA57991.1 CAB38448.1 SEQ ID NO. 1	CAA09001.1 CAA34615.1 AAF43427.1	¿	AAK28806.1 AAK28804.1 AAK28809.1 AAK28808.1 AAK28805.1 CAA08797.1 CAC35339.1	CAC35328.1 CAC35337.1 CAC35332.1 CAC35336.1 CAC35336.1 CAC35330.1 CAC35338.1 CAC35338.1 CAC35333.1 CAC35333.1 CAC35333.1 CAC35333.1 CAC35333.1

Tradescantia virginiana Oryza sativa Oryza sativa Solanum tuberosum	Oryza sativa Nicotiana tabacum Zea mays Zea mays Marchantia polymorpha Marchantia polymorpha Cucurbita pepo	Marchantia polymorpha Mesembryanthemum crystalli Glycine max Solanum tuberosum Ipomoea batatas Zea mays	Fragaria x ananassa 72 Medicago sativa 72ea mays 70rtula ruralis 70ryza sativa 70ryza sativa 70ryza sativa 70ryza sativa 70ryza sativa 70ryza sativa 72ea mays 72ea ma
Tradescantia Oryza sativa Oryza sativa Solanum tube:	Oryza sativa Nicotiana taba Zea mays Zea mays Marchantia pol Marchantia pol Daucus carota Cucurbita pepo	Marchantia Mesembryant Glycine max Solanum tub Ipomoea bat Zea mays	Fragaria x anan Medicago sativa Zea mays Tortula ruralis Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Zea mays Glycine max Dunaliella tert Cucumis sativas Chlamydomonas e Oryza sativa Arachis hypogae Lilium longiflo Glycine max
AE009337 AE194413 AE194414 AE030879	X81394 AF072908 D85039 U28376 AB017517 AB017515 X56599 U90262 AB017516	AB017515 AF090835 U69174 AF115406 D87707 AJ007366	AF035944 X96723 L27484 U82087 AB042550 AP000615 U84408 X81393 AF048691 U08140 U08140 U08140 U08140 U08140 U08140 U08140 U08143 AF216527 AY027865 U15390 Z49233 AC073166 D13436 D13436 D13436 AF001168 Y18055 U24188
AAC24961.1 AAF23900.1 AAF23901.2 AAC78558.1	CAA57157.1 AAC25423.1 BAA12715.1 AAA69507.1 BAA81751.1 CAA39936.1 AAB49984.1 BAA81750.1	BAAB1748.1 AAD17800.1 AAB80693.1 AAD28192.2 BAA13440.1 CAA07481.1	AABB8537.1 CAA65500.1 AAA61682.1 AAB70706.1 BAB1688.1 BAA12338.1 CAA57156.1 AAC05270.1 AAC49405.1 BAA13232.1 AAC4610.1 AAG46110.1 BAA02698.1 BAA02698.1 BAA02698.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1 BAAC46110.1
Oryza sativa Oryza sativa Brassica napus	Sinapis alba Brassica napus Raphanus sativus Brassica napus Catharanthus roseus Nicotiana tabacum Nicotiana tabacum	2 2	a titi titi
AF323586 AF045770 S77096	1062 X16953 X83920 X92102 U27107 AF084971 Z48602 Z48603	U10270 U42208 L01449 X83922 X83921 AY027510	104295 004295 AE084972 M28704 Y10809 X74942 X74943 X74944 X7494
AAG43027.1 AAC03055.1 AAB33843.1	SEQ ID NO. CAA58772.1 CAA63073.1 AAB03378.1 AAD42937.1 CAA88492.1 CAA88493.1	AAA80169.1 AAB40291.1 AAB00098.1 CAA58774.1 CAA58773.1	

SEQ ID NO. CAB43937.1

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AAD52098.1

AAC12684.1 AAA80495.1 BAA85150.1 AAC12685.1 BAB32662.1 BAA77239.1 CAB59900.1 CAA65828.1 BAB39483.1

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Lycopersicon esculentum					Lycopersicon esculentum	Lycopersicon esculentum						Oryza sativa	Lycopersicon esculentum			Alnus glutinosa	Lycopersicon esculentum		esculentum	esculentum					Glycine max	Glycine max	Oryza sativa	Lycopersicon esculentum	Lilium longiflorum	Gossypioides kirkii	Hordeum vulgare			Populus nigra	Phaseolus vulgaris	Oryza sativa subsp. japonica	ca oleracea	Zea mays	Oryza sativa	Brassica napus
AJ006378	AJ006379	X98930	X98929	X17276	X10149	AJ005173	AJ005171	X17278	X18932	AJ005172	AJ006786	AP002899	X18931	X95270	X17275	X85975	X17277	AJ006376	AJ006380	AJ006480	AJ006377	AJ006481	AJ006483	AB037371	AF160513	AF036960	AF200467	AF181496	D21815	AF201883	AJ222782		1066	AB030083	AF078082	AF230515	X12531	U82481	AP001551	AY028699
CAA06999.1	CAA07000.1	CAA6/430.1	CAA6/429.1	CAA76725.1	CAA71234.1	CAA06414.1	CAA06412.1	CAA76727.1	CAB67120.1	CAA06413.1	CAA07250.1	BAB21149.1	CAB67119.1	CAA64566.1	CAA76724.1	CAA59964.1	CAA76726.1	CAA06997.1	CAA07001.1	CAA07059.1	CAA06998.1	CAA07060.1	CAA07062.1	BAB03290.1	AAG38994.1	AAD02075.3	AAG09442.1	AAF13299.1	BAA04839.1	AAF31406.1	CAA10987.1		SEQ ID NO. 1	BAA82556.1	AAD21872.1	AAF43408.1	CAA73134.1	AAB93834.1	BAA92954.1	AAK21965.1
Nicotiana tabacum		;	4	ragaria x ananassa	capsicum annuum	Lycopersicon esculentum	Pinus radiata	Lycopersicon esculentum	Pisum sativum	Pinus radiata	Atriplex lentiformis	Populus alba	Capsicum annuum	Capsicum annuum	Populus alba	Pisum sativum	Lycopersicon esculentum	Lycopersicon esculentum	Prunus persica	Prunus persica	Populus alba	Lycopersicon esculentum	Capsicum annuum	ď	-	Phaseolus vulgaris	Fragaria x ananassa		Lycopersicon esculentum	Oryza sativa	Fragaria x ananassa	Lycopersicon esculentum	Hordeum vulgare	Brassica napus	Glycine max	Fragaria x ananassa	Gossypium hirsutum	Vigna radiata	•	
L U70923	1064	5001 TOURS	0.0000000000000000000000000000000000000	AFU/4923	787/RA	. 013055	1 076725	L U20590	L AB032830	1 076756	L AB055886	. AB025796	. AJ010950	. x97190	AB049200	L41046	. AF077339	. X11268	. x96856	. X96853	. AB049199	. AF098292	. X97188	X87323	034754	M57400	AJ006349	AP002094	013054	AP002094	AJ223386	U78526	AB040769	AJ242807	000730	AJ223387	D88417	223081		1065

AAA96135.1 AAC62241.1 CAA65600.1 CAA65597.1 BAB39482.1 AAD08699.1 CAA6826.1 CAA60737.1 AAC78504.1 AAC78504.1 AAAC2563.1 CAB43938.1 BAA96209.1 CAA11301.1

BAA21111.1 CAA80627.1

CAB51903.1 AAA20082.1

AAC49704.1

BAA92953.1	AP001551	29	BAB32406.1	AB055515	
BAA94516.1	AP001800	Oryza sativa	CAA58760.1	X83879	
AAD52097.1	AE088885	Nicotiana tabacum	CAA57721.1	X82270	Medicago sativa
AAC23542.1	U20948	Ipomoea trifida	AAF81420.1	AF247136	Capsicum annuum
AAG16628.1	AX007545	Brassica napus	AAD37790.1	AF149424	Ipomoea batatas
AAA33915.1	L27821	Oryza sativa	AAG40580.1	AF216316	Oryza sativa
BAA94509.1	AB041'503	Populus nigra	CAB37188.1	AJ224336	Medicago sativa
AAD46420.1	AF100771	Hordeum vulgare	AAF61238.1	AF241166	Oryza sativa
BAA23676.1	AB000970	Brassica rapa	AAG40581.1	AF216317	Oryza sativa
	AP001800	Oryza sativa	CAB61889.1	AJ251330	Oryza sativa
BAA21132.1	D88193	Brassica rapa	CAA73323.1	X12785	Petroselinum crispum
BAA06285.1	D30049	Brassica rapa	CAC13967.1	AJ250311	Oryza sativa
BAA94529.2	AP001800	Oryza sativa	CAA56314.1	X79993	Avena sativa
AAR61708.1	093048	Daucus carota	CAA49592.1	X69971	Nicotiana tabacum
Caa79355.1	218921	Brassica oleracea	CAA58466.1	X83440	Petunia x hybrida
AAK11674.1	AE339747	Lophopyrum elongatum	AAK01710.1	AF332873	Oryza sativa
DDE03496 1	AF131222	Lophopyrum elongatum	AAG40579.1	AF216315	Oryza sativa
BAA94510 1	AB041504	Populus nigra	CAA57719.1	X82268	Medicago sativa
BAB33000.1	M76647	Brassica oleracea	AAC28850.1	AF079318	Triticum aestivum
L 30000000	X98520	Brassica oleracea	BAA74734.1	AB016802	Zea mays
DAR47421 1	1159316		AAF73257.1	AF154329	Pisum sativum
PAPO7577 2	D38564	Brassica raba	BAA09600.1	D61377	Nicotiana tabacum
1.8005EAAA	7926W		AAF81419.1	AF247135	Capsicum annuum
	7	assica	BAA74733.1	AB016801	Zea mays
BAA92837.1	AB032474	assica oleracea	CAA05328.1	AJ002314	Nicotiana tabacum
			CAA05329.1	AJ002315	Nicotiana tabacum
SEO ID NO.	1067		CAA11861.1	AJ224164	Petunia x hybrida
_	AE194416	Oryza sativa	CAA58595.1	X83620	Petunia x hybrida
AAD52659.1	AF177392	Oryza sativa	CAA11862.1	AJ224165	Petunia x hybrida
AAF23902.1	AF194415	Oryza sativa	CAA58594.1	X83619	Petunia x hybrida
AAD28617.1	AF129087	dice	AAA92823.1	U18365	Brassica napus
CAB61750.1	AJ275316	Cicer arietinum	BAA92214.1	AP001278	Oryza sativa
AAB57843.1	096716	Selaginella lepidophylla	CAA67554.1	X99100	Trifolium repens
AAF65766.1	AF242308	Euphorbia esula			
BAB18271.1	AB035141	Chlamydomonas reinhardtii		1070	
CAA58761.1	X83880	Nicotiana tabacum	AAF76898.1	AF274033	Atriplex hortensis
CAA47099.1	X66469	Medicago sativa	CAC12822.1	AJ299252	Nicotiana tabacum
AAB41548.1	L07042	Medicago sativa	AAC24587.1	AE071893	Prunus armeniaca
AAB58396.1	094192	Nicotiana tabacum	AAF23899.1	AF193803	Oryza sativa
CAA50036.1	X70703	Pisum sativum	BAA78738.1	AB023482	Oryza sativa
AAF73236.1	AF153061	Pisum sativum	AAG43545.1	AF211527	Nicotlana tabacum

CAB96874.1 AJ277164 Malus x domestica	X96714 Prunus	J04176	1 X96716	AAB70538.1 AF017358 Oryza sativa	AAF35184.1 AF195863 Gossypium hirsutum	H	AAA86694.1 U18127 Hordeum vulgare	AAG27707.1 AF302788 Triticum aestivum	AAA75599.1 U15153 Gossypium hirsutum	1 \$78173	7	AAD46683.1 AF171094 Lilium longiflorum	AAB96834.1 M64746 Daucus carota	CAA63407.1 X92748 Beta vulgaris	AAB70541.1 AF017361 Oryza sativa	AAA33494.1 M57249 Zea mays	266529	AABU5812.1 U63993 Hordeum vulgare	AAB70540.1 AF017360 Oryza sativa	X08691	U77295	CAA48621.1 X68654 Hordeum vulgare		SEQ ID NO. 1073	AAD46406.1 AF096250 Lycopersicon esculentum	AAD10057.1 AF110519 Lycopersicon esculentum		AF305911		CAA06334.1 AJ005077 Lycopersicon esculentum	AAK30005.1 AY029067 Rosa hybrid cultivar	AAA34002.1 M67449 Glycine max	AAK11734.1 AY027437 Arachis hypogaea	CAC09580.1 AJ298992 Fagus sylvatica	AAF76189.1 AF271206 Rosa hybrid cultivar	AAF78015.1 AF238471 Oryza sativa	U78762	CAA61510.1 X89226 Orws sativa
Mesembryanthemum crystallinum		Oryza sativa	Catharanthus roseus	Catharanthus roseus	Oryza sativa	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Hordeum vulgare			Lycopersicon esculentum	Lycopersicon esculentum	Mercurialis annua			Brassica oleracea	Brassica oleracea	Brassica oleracea	Brassica napus	Brassica napus	Brassica oleracea	Brassica oleracea	Brassica oleracea	Gossypium hirsutum	Corylus avellana	Oryza satíva	Oryza sativa	Gossypium hirsutum	Gossypium hirsutum	Gossypium hirsutum	Brassica napus	Sorghum bicolor	Prunus avium	Zea mays	Oryza sativa	Spinacia oleracea	Malus x domestica
AF245119	AB036883	AB037183	AJ251250	AJ251249	AP002526	AF057373	AF211530	AF211531	AF298231		1071	M98466	U63374	U79772		1072	L33904	AF093751	L33906	U22174	022105	L33905	L33907	L29767	AF195864	AE329829	031766	AF017359	AF228333	AF195865	AE044204	AF101038	X71668	AF221501	066105	223271	M58635	AF221502
AAF63205.1	BAB16083.1	BAB03248.1	CAB96900.1	CAB96899.1	BAA99376.1	AAC62619.1	AAG43548.1	AAG43549.1	AAK01089.1			AAA34181.1	AAB39547.1	AAB38497.1			AAA73945.1	AAC63372.1	AAA73947.1	AAA64310.1	AAB37228.1	AAA73946.1	AAA73948.1	AAA32995.1	AAF35185.1	AAK28533.1	AAA74624.1	AAB70539.1	AAG29777.1	AAF35186.1	AAC00499.1	AAD09107.1	CAA50661.1	AAF26449.1	AAB06443.1	CAA80809.1	AAA34032.1	AAF26450.1

019 Samanea saman 686 Zea mays 9 Solanum tuberosum 9 Vicia faba	714 Ipomoea nil 1984 Lycopersicon esculentum 1591 Pisum sativum 1773 Pisum sativum 19 Pisum sativum 1774 Pisum sativum 1053 Oryza sativa subsp. japoni	1592 Pisum sativum 11 Glycine max 12 Glycine max 14 Lycopersicon esculentum 15 Spinacia oleracea 16 Spinacia sativa 17 Orvza sativa	
AJ299019 AJ132686 X79779 Y10579	1077 AE315714 AF029984 A7289773 Y09579 A7289774 A7289774	. 1078 . 1078 . U51191 . U51192 . L13654 . L13653 . X16776	
CAC10514.1 CAB54856.1 CAA56175.1 CAA71598.1	SEQ ID NO. AAG31173.1 AAC98912.1 CAB9693.1 CAB94800.1 CAA70768.1 BAA94422.1	SEQ ID NO. AAD11481.1 AAD11482.1 AAA65637.1 AAA65636.1 CAA76374.2	DAAGO 2011 BAAO 7664.1 BAAO 7664.1 BAAO 7663.1 BAAO 7663.1 BAAO 11483.1 AAD 11483.1 AAD 11484.1 CAAG 2226.1 CAAG 2226.1 CAAG 413.1 BAAO 1950.1 BAAO 1950.1 AAB 67737.1 AAB 67737.1 AAB 67737.1 AAB 67737.1 AAB 67737.1 CAAG 2225.1
Phaseolus vulgaris Oryza sativa Oryza sativa Oryza sativa	Oryza sativa Oryza sativa Oryza sativa Hordeum vulgare Oryza sativa Nicotiana tabacum Glycine max Glycine max	Vigna radiata Spinacia oleracea Nicotiana sylvestris Pisum sativum Zea mays Oryza sativa	Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Nicotiana paniculata Triticum aestivum Daucus carota Zea mays Populus tremula x Populus Populus tremula x Populus Samanea saman Oryza sativa Oryza sativa
AF285172 AP003338 AP003338 AF238476	AE23475 AE237569 AE237567 AE085166 AP001800 AE142596 AE244890 AE244890	1075 AF156667 X99937 D16247 AF271892 AF079782 AB042643	AB042644 AC084218 1076 AF079871 U65390 X96390 AB032074 AF207745 A7249962 Y07632 AJ271446 AJ271447 AF145272 AF145272 AF145272 AF145272 AF002093
AAG00510.1 BAB39437.1 BAB39434.1 AAF78020.1	AAF78019.1 AAF68399.1 AAF68397.1 AAD44031.1 BAA94516.1 AAF91323.1 AAF91324.1		BAA95705.1 AAG48833.1 SEQ ID NO. 1 AAF33670.1 AAB53255.1 CAA65254.1 BAA84085.1 AAF36832.1 CAA68912.1 CAC65488.1 tremuloides CAC05488.1 tremuloides CAC05489.1 tremuloides CAC05489.1 tremuloides CAC05489.1 tremuloides CAC05489.1 tremuloides

Glycine max	Lycopersicon hirsutum	Zea mays	Lycopersicon pimpinellifol				Lycopersicon esculentum		1		Frit1]laria agrestis	Cichorium intybus	Oryza sativa	Oryza sativa	Oryza sativa	Chlamydomonas reinhardtii		Stellaria longipes		320	Oryza sativa	Oryza sativa	Fritillaria agrestis	Cichorium intybus	Oryza sativa	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Stellaria longipes			Oryza sativa	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Sorghum bicolor	Hordeum vulgare	Sorghum bicolor	Lycopersicon esculentum	Sorghum bicolor	Oryza sativa
AF244888	AE318492	U67422	AF220602	AF220603	059317	AP001551	U59318	AF244890		1080	AF031540	AF101422	D12634	M63704	AE017367	M35173	299829	221499		1081	D1.2634	M63704	AF031540	AF101422	AF017367	M35173	Z99829	221499		1082	AF002539	X09602	X78878	X78877	AF061282	X78876	AF061282	AF242849	AF061282	D17586
AAF91322.1	AAK11568.1	AAB09771.1	AAF76307.1	AAF76314.1	AAB47424.1	BAA92954.1	AAB47422.1	AAF91324.1		SEQ ID NO.		AAC84135.1	BAA02159.1	AAA63515.1	AAB70265.1	AAA33084.1	CAB16954.1	CAA79708.1			BAA02159.1	AAA63515.1	AAB86850.1	AAC84135.1	AAB70265.1	AAA33084.1	CAB16954.1	CAA79708.1		SEQ ID NO.	BAB08188.1	CAA70815.1	CAB59202.1	CAA55478.1	AAD22150.1	CAB58992.1	AAD22151.1	AAF44708.1	AAD22164.1	BAA04510.1
Zea mays	Phaseolus vulgaris	Ipomoea batatas	Medicago sativa	Nicotiana tabacum	Oryza sativa		Phaseolus vulgaris	Mèrcurialis annua	Glycine max	Glycine max	Triticum aestivum	Asparagus officinalis	Phaseolus vulgaris	Spinacia oleracea	Spinacia oleracea	Glycine max	Spinacia oleracea	Armoracia rusticana	Triticum aestivum			Brassica napus	Brassica napus	Oryza sativa	Populus nigra	Populus nigra	Oryza sativa	Lycopersicon esculentum	Lophopyrum elongatum	Lophopyrum elongatum	Glycine max	Glycine max	Zea mays	Nicotiana tabacum	Oryza sativa	Phaseolus vulgaris	Zea mays	Daucus carota	Catharanthus roseus	Oryza sativa
AJ401274	AF149277	AJ242742	L36156	AB027753	AE247700	AP001383	AF149280	X91232	AF007211	AF014502	X56011	AB042103	AE149279	AF244923	X10462	AF145349	X16778	D90115	X85228		1079	AX007545	AY028699	AC073405	AB041503	AB041504	AB023482	U28007	AF131222	AF339747	AF249318	AF249317	AF023164	AF142596	. 69000	AF078082	AF023165	093048	273295	L27821
CAC21391.1	AAD37427.1	CAB94692.1	AAB41810.1	BAA82307.1	AAF65464.2	BAA92500.1	AAD37430.1	CAA62615.1	AAC98519.1	AAB97734.1	CAA39486.1	BAA94962.1	AAD37429.2	AAF63026.1	CAA71488.1	AAD37375.1	CAA76376.1	BAA14143.1	CAA59485.1		SEQ ID NO.	AAG16628.1	AAK21965.1	AAG03090.1	BAA94509.1	BAA94510.1	BAA78764.1	AAC61805.1	AAF43496.1	AAK11674.1	AAF91337.1	AAF91336.1	AAC27894.1	AAF66615.1	CAB51834.1	AAD21872.1	AAC27895.1	AAB61708.1	CAA97692.1	AAA33915.1

																			3	27	7																			
Cuphea lanceolata	Iris germanica	Iris germanica	Iris tectorum	Iris tectorum	Oryza sativa	Cuphea lanceolata	Cuphea palustris	Cuphea wrightii	Cuphea wrightii	Cuphea lanceolata	Cuphea palustris	Cuphea hookertana	Cuphea hookeriana	Elaeis guineensis	Cinnamomum camphora		Umbellularia californica	Solanum tuberosum			Pisum sativum	Nicotiana tabacum	Nicotiana tabacum			Lycopersicon esculentum	Oryza sativa	Hordeum vulgare	Rosa hybrid cultivar	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Glycine max	Arachis hypogaea	Fagus sylvatica	Catharanthus roseus	Glycine max	Glycine max	Brassica napus	Oryza sativa
AJ131739	AF213476	AF213477	AF213480	AF213479	AP000399	AJ131740	U38189	056104	U56103	AJ131741	U38188	AF062399	U39834	AF147879	U31813	M94159	U17097	AJ003221		1084	AB052729	M93436	M96432		1085	AJ005077	AF305911	AF305912	AX029067	AF096250	AF110519	AF110518	M67449	AX027437	AJ298992	273295	AF197947	AF197946	AJ010091	69000
CAC19933.1	AAG43857.1	AAG43858.1	AAG43861.1	AAG43860.1	BAA83582.1	CAB60830.1	AAC49180.1	AAC49784.1	AAC49783.1	CAC19934.1	AAC49179.1	AAC72881.1	AAC49269.1	AAD42220.1	AAC49151.1	AAA34215.1	AAC49001.1	CAA06001.1		SEQ ID NO.	BAB41080.1	AAA34085.1	AAA34054.1			CAA06334.1	AAG31141.1	AAG31142.1	AAK30005.1	AAD46406.1	AAD10057.1	AAD10056.1	AAA34002.1	AAK11734.1	CAC09580.1	CAA97692.1	AAF59906.1	AAF59905.1	CAA08995.1	CAB51834.1
Hordeum vulgare	Hordeum vulgare	Lycopersicon pennellii	Solanum berthaultii	Solanum berthaultii	Solanum berthaultii	Matricaria chamomilla	Oryza sativa	Oryza sativa	Hordeum vulgare	Oryza sativa	Cicer arietinum	Oryza sativa	Vigna radiata	Vigna radiata	Pisum sativum			Brassica rapa	Brassica napus			Cuphea hookeriana	Carthamus tinctorius	Garcinia mangostana	Carthamus tinctorius	Capsicum chinense	Iris germanica	Garcinia mangostana	Elaeis guineensis	Brassica juncea	Cuphea hookeriana	Myristica fragrans	Garcinia mangostana	Cuphea hookeriana	Helianthus annuus	Elaeis guineensis	Elaeis oleifera	Cuphea lanceolata	Gossypium hirsutum	Gossypium hirsutum
X09603	J03897	AF248647	AF006080	AF006078	AE006079	AF141384	D17587	D10985	X09604	AP001633	AJ271659	AP002839	049382	049741	268130		1083	017098	X73850	X73849	X87842	AF062401	M96569	U92876	M96568	AF318288	AF213478	U92877	AF110462	AJ278479	U17076	U65642	U92878	AF062400	AF036565	AF143095	AF141382	X76561	AF034266	AE076535
CAA70816.1	AAA32940.1	AAF64227.1	AAD01265.1	AAD01263.1	AAD01264.1	AAD42963.2	BAA04511.1	BAA01757.1	CAA70817.1	BAA94235.1	CAB71127.1	BAB19126.1	AAA92062.1	AAA92064.1	CAA92216.1		SEO ID NO.	AAC49002.1	CAA52070.1	CAA52069.1	CAA61111.1	AAC72883.1	AAA33020.1	AAB51523.1	AAA33019.1	AAG35064.1	AAG43859.1	AAB51524.1	AAD28187.1	CAC14164.1	AAC48990.1	AAB71729.1	AAB51525.1	AAC72882.1	AAB88824.1	AAD33895.1	AAD33870.1	CAA54060.1	AAD01982.1	AAF02215.1

																			3	328	8																			
Oryza sativa	Prunus avium	Triphysaria versicolor	Lycopersicon esculentum	Eustoma grandiflorum	Triphysaria versicolor	Zinnia elegans	Oryza sativa	Nicotiana tabacum	Marsilea quadrifolia	Festuca pratensis	Lycopersicon esculentum	Cicer arietinum	Oryza sativa	Oryza sativa	Lycopersicon esculentum	Oryza sativa	Triphysaria versicolor	Cucumis sativus	Brassica napus	Regnellidium diphyllum	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Nicotiana tabacum	Oryza sativa	Glycine max	Nicotiana tabacum	Striga asiatica	Oryza sativa	Nicotiana tabacum			Populus tremula x Populus		Betula pendula	Citrus unshiu	Pisum sativum	Lycopersicon esculentum	Citrus unshiu	Malus x domestica
U85246	AF297522	AF230276	AF184233	AB049406	AF230278	AF230333	U30477	AF049353	AF202119	AJ276007	AF059489	AJ291816	AF247163	AF247162	AJ243340	AP000837	AE230277	U30460	AJ000885	AF202120	AF059488	AJ004997	U82123	AF049350	AE247164	AJ289154	AF'049351	AF291659	X07782	AF'049352		1089	AF086839		AJ279687	AB011798	U79562	AJ250003	AB011799	068560
AAB81662.1	AAG13983.1	AAF32409.1	AAG32921.1	BAB32732.1	AAF32411.1	AAF35902.1	AAB38074.1	AAC96080.1	AAF17570.1	CAC06433.1	AAD13633.1	CAC19183.1	AAF62181.1	AAF62180.1	CAB46492.1	BAA88200.1	AAF32410.1	AAB37749.1	CAA04385.1	AAE17571.1	AAD13632.1	CAA06271.2	AAC63088.1	AAC96077.1	AAF62182.1	CAC18802.1	AAC96078.1	AAG01875.1	CAA69105.1	AAC96079.1		SEQ ID NO.]	AAD02848.1	tremuloides	CAB66329.1	BAA36555.1	AAC77357.1	CAB61887.1	BAA36556.1	AAB16804.1
Brassica napus	Oryza sativa	Nicotiana tabacum	Nicotiana tabacum	Rosa hybrid cultivar	Oryza sativa	Oryza sativa	Nicotiana tabacum	Glycine max	Phaseolus vulgaris	Oryza sativa	Glycine max	Glycine max	Oryza sativa subsp. japonica	Zea mays	Brassica napus	Oryza sativa	Lycopersicon hirsutum			Oryza sativa				Cicer arietinum	Prunus avium	Prunus persica	Prunus armeniaca	Prunus armeniaca	Pinus taeda	Cucumis sativus	Fragaria x ananassa		Pinus taeda	Pinus taeda	Lycopersicon esculentum	Pinus taeda	Lycopersicon esculentum	Rumex palustris		Gossypium hirsutum
AJ010093	AF172282	AF302082	D31737	AF271206	AP000559	AP000391	AF142596	AF244888	AF078082	X89226	AF244889	AF244890	AF230501	AF320086	AY028699	AP003338	AF318492	1	1086	AP000615		1088	AF230332	AJ291817	AF297521	AB029083	U93167	AF038815	AF085330	U30382	AF159563	U64890	U64893	064891	AJ239068	U64892	AE096776	AF167360	AF049354	AF043284
CAA08997.1	AAF34436.1	AAG25966.1	BAA06538.1	AAF76189.1	BAA84787.1	BAA83373.1	AAF66615.1	AAF91322.1	AAD21872.1	CAA61510.1	AAF91323.1	AAF91324.1	AAF43394.1	AAK16409.1	AAK21965.1	•	AAK11568.1		SEQ ID NO.	BAA85400.1			AAF35901.1	CAC19184.1	AAG13982.1	BAB19676.1	AAC33529.1	AAC33530.1	AAD47901.1	AAB37746.1	AAF21101.1	AAB40634.1	AAB40637.1	AAB40635.1	•	AAB40636.1	AAC64201.1	AAD49956.1	AAC96081.1	AAC39512.1

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Vitis riparia	Brassica napus	brassica napus Brassica napus		Nicotiana tabacum			Oryza sativa	Oryza sativa	Spirodela polyrrhiza	Oryza sativa	•		Ivcopersicon esculentum		Potamodeton crispus	Lycopersicon esculentum		Glycine max	Zea mays	Chloroplast Glycine max	Daucus carota	Oryza sativa	Zea mays	Glycine max	Oryza sativa			Petunia x hybrida	Petunia x hybrida	Phaseolus vulgaris	Phaseolus vulgaris	Zea mays	Zea mays	Oryza sativa	Petunia x hybrida	Oryza australiensis	Oryza officinalis	Oryza eichingeri
AF220405	S81261	U33885	033884	AF120092		1103	AP001111	AP001111	270524	AP000391		1104	AF088276	X93301	AF088279	AF109150	1105	AF049708	L33912	AF049706	1.11529	D78573	L33913	AF135862	AB042521		1106	AF260919	AF260918	U18348	U18349	AF061107	AJ251719	N39860	AF020545	U39863	U39865	U39864
AAF37266.1	AAB36223.1	AAC49266.1	AAC49265.1	AAD28439.1			BAA90508.1	BAA90507.1	CAA94437.1	BAA83352.1		SEQ ID NO.	AAD25300.1	CAA63704.1	AAD25225.1	AAD24966.1	SEQ ID NO.	AAC05983.1	AAA74360.1	AAC05981.1	AAA16972.1	BAA11417.1	AAA74361.1	AAD41796.1	BAA95630.1		SEQ ID NO.	AAG25928.1	AAG25927.1	AAB00686.1	AAC28907.1	AAD15818.1	CAB92300.1	AAC49219.1	AAC39455.1	AAC49212.1	AAC49216.1	AAC49213.1
Nicotiana suaveolens x	940[001010	₫	Picea mariana	Hordeum vulgare	Hordeum vulgare	Zea mays			Spinacia oleracea	Mesembryanthemum crystallinum	Cucurbita sp.	Oryza sativa	Lycopersicon esculentum	Medicago sativa	Nicotiana tabacum	Lactuca sativa		Nicotiana sylvestris	Pisum sativum	Vigna radiata	Spinacia oleracea	Zea mays	Oryza sativa	Oryza sativa			Brassica napus	Brassica napus	Panax ginseng	Lycopersicon esculentum			Tulipa gesneriana	Tulipa gesneriana	Tulipa gesneriana	Mesembryanthemum crystallinum		
AB058921	Labacuii ABA58922	tabacum	AF051247	AJ133276	AJ133277	AF055909		1090	J03492	080071	D14044	AF022740	X92888	AF082874	062485	AF162196	1091	D16247	AF271892	AF156667	X99937	AE079782	AB042643	AB042644		1094	AJ005931	AJ005928	AB003516	AJ004923		1096	AF283707	AF283708	AF283706	AF053564		1102
BAB40808.1		Nicotiana t	AAC32147.1	CAB56223.1	CAB56224.1	AAC24568.2			AAA34030.1	AAB40396.1	BAA03131.1	AAB82143.1	CAA63482.1	AAC32392.1	AAC33509.1	AAF03097.1	SEQ ID NO.	BAA03763.1	AAF75791.1	AAF40306.1	CAA68193.1	AAD20980.1	BAA95704.1	BAA95705.1			CAA06773.1	CAA06770.1	BAA24448.1	CAA06223.1			AAG14455.1	AAG14456.1	AAG14454.1	AAC08401.1		SEQ ID NO.]

Pisum sativum	Zea mays Oryza sativa Zea mays		Zea mays Zea mavs		Zea mays		Din	Frins radiata		Nicotiana tabacum			Cicer arietinum	ralie	Prinnis armeniaca			Taxus canadensis			Solanum fuberosum	Eucalvotus camaldulensis	Solanim fuberosum				Viqna radiata	•		Mesembiyantnemum crystallinum	10ths 10001 000	Locus Japonicus Mesembryanthemum crystallinum		Lotus japonicus
AB048713	AF263457 AP001168 AF067400	1114	AJ251568	AJ251018	AJ251019	1116	AFOOTISE	000000000000000000000000000000000000000	1119	AJ006228		1122	AJ275318	AJ295156	U82433)) !	1124	AF081514		1125	AJ308597	AE175507	AJ224926	AE099096		1127	X99348	(1133	AF213455	AF092431	AF075580	AF075579	AF092432
BAB39155.1	AAG13663.1 BAA90816.1 AAC98090.1	SEQ ID NO.	CAC03739.1	CAC04001.1	CAC04002.1	OR OT ORS	AAD22518 1		SEQ ID NO.	CAA06925.1		SEQ ID NO.	CAB61752.1	CAC14890.1	AAB68605.1		SEO ID NO.			SEQ ID NO.		AAF97863.1	CAA12225.1	AAD16279.1			CAA67728.1		APC36700 1	AAG43835.1	AAD17804.1	AAC36698.1	AAC36697.1	AAD17805.1
Tulipa gesneriana	Lycopersicon esculentum Lycopersicon esculentum	Nicotiana glutinosa		•	Nicotiana tabacum Glycine max	Zea mays	Prunus armeniaca	Chlamydomonas reinhardtii	Phaseolus vulgaris	Oryza sativa	Capsicum annuum	Zea mays	Lotus japonicus.	Glycine max	Nicotiana tabacum	Nicotiana tabacum	Spinacia oleracea	Betula pendula	Nicotiana tabacum		Leavenworthia uniflora	Leavenworthia crassa	Leavenworthia uniflora	Leavenworthia stylosa	Leavenworthia stylosa	Glycine max	Leavenworthia uniflora		Tulipa desperiana		Tulipa gesneriana			
AF185269	1107 U75644 U83708	U73203	1109	D83583	AB010/1/ AY017473	D50679	AF071890	X08937	010419	D50556	AFUGOOTO	M23456	AJ293240	090429	X66145	X66147	X17031	X60093	X66146	AF082602	AF082603	AF082604	AF082606	AF082605	AF082607	L23855	AF082608	0111	AF283707	AF283708	AF283706	AF053564	1111	**
AAD56411.1		AAB38796.1		BAA33531.1 BAA33796 1	AAG59996.1	BAA23641.1	AAC24584.1	CAA70137.1	AAA74456.1	BAAU9122.1	T. / 27 / TOUG	AAAbu45U.I	CACOBOURD. I	AAB50233.1	CAR46940.I	CAA46942.1	CAA34893.1	CAA42690.1	CAA46941.1	AAC34042.1	AAC34043.1	AAC34044.1	AAC34046.1	AAC34045.1	AAC34047.1	AAA96730.1	AAC34048.1	SEO ID NO. 1		AAG14456.1	AAG14454.1	AAC08401.1	SEC TO NO. 11	1 10 10 10 10 10 10 10 10 10 10 10 10 10

Glycine max	Disum satium	Pisum sativum	Glycine max			Nicotiana takadim	Spine Capacull	Spinacia Oleracea			Oryza sativa		Oryza sativa		Nicotiana tabadim	Organ cation	Dancie contra	Daucus carota			Nicotiana tabacum	Zea mays	Oryza sativa	Zea mays	Oryza sativa	Brassica oleracea	Brassica napus	Oryza sativa	Brassica oleracea	Ipomoea trifida	Oryza sativa	Brassica oleracea	Brassica oleracea	Populus nigra	Brassica oleracea	Brassica oleracea			Prunus armeniaca
J03919	X68217	X68216	AF169830		1164	AB010878	X93160	V14932	300111	1167	AP001168	AP001168	AP001168	1168	AF302082	1.27821	130720	0.0000 0.00000	AEU/0062	031/3/	Ar.142596	U67422	AP001800	U82481	AP001551	Y18259	AY028699	AP001800	Y12531	020948	AB023482	X98520	Y18260	AB041503	X12530	AB032473		1170	U93272
AAA33945.1	CAA48299.1	CAA48298.1	AAD50278.1		SEO ID NO.	BAA31510.1	CAA63651 1	CAA75149.1	1.0510	SEQ ID NO.	BAA90815.1	BAA90804.1	BAA90803.1	SEO IN NO	AAG25966.1	AAA33915 1	1 8071384	1 07810014	1.2/01/04/04	BAA06538.1	AAE COCIS. I	AAB09771.1	BAA94516.1	AAB93834.1	BAA92954.1	CAB41878.1	AAK21965.1	BAA94517.1	CAA73134.1	AAC23542.1	BAA78764.1	CAA67145.1	CAB41879.1	BAA94509.1	CAA73133.1	BAA92836.1			AAB88875.1
Medicago sativa Nicotiana tabacum	Nicotiana tabacum	Fagus sylvatica	Oryza sativa	Mesembryanthemum crystallinum			Mesembryanthemum crystallinum		Fagus sylvatica			Solanum tuberosum		Hordeum vulgare	Glycine max	Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Chlamydomonae reinhardtii	Chlemydomones remmarater	Ciramiyacimonas reminiarantr			Pisum sativum	Oryza sativa	Zea mays	Zea mays	Oryza sativa	Pisum sativum			Phaseolus vulgaris	Nicotiana alata	Petroselinum crispum			yza	mns.	Pisun sativum
Y11607 AJ277086	AJ277087	AJ298987	AF075603	AF075581	AF097667	AJ277744	AF079355	U81960	AJ298988		1141	X79273	1147	M31545	U20260	L39279	X65974	X65973	003632	1103633			1153	AB048713	AP001168	AF263457	AF067400	AF067401	AB048714		1154	X60391	X70441	L36982	,	1163	AP002070	X68215	X68218
CAA72341.1 CAC10358.1	CAC10359.1	CAC09575.1	AAC26828.1	AAC36699.1	AAD11430.1	CAB90634.1	AAC35951.1	AAB93832.1	CAC09576.1			CAA55860.1	SEQ ID NO.	AAB59330.1	AAC48996.1	AAA81881.1	CAA46787.1	CAA46786.1	AAA18861.1	AAA18862 1	1			BAB39155.1	BAA90816.1	AAG13663.1	AAC98090.1	AAC98091.1	BAB39156.1			CAA42942.1	CAA49895.1	AAA98492.1			BAA95840.1	CAA48297.1	CAA48300.1

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Nicotiana tabacum Petunia y hybrida	Solanum melongena	Asparagus officinalis	Asparagus officinalis	Nepeta racemosa			Solanum melongena	Nepeta racemosa	Nepeta racemosa		Solanum melongena	Solanum melongena	Mentha x piperita	Glycine max	Capsicum annuum	Glycine max	Asparagus officinalis	Asparagus officinalis	Thlaspi arvense	Solanum melongena	Nicotiana tabacum	Catharanthus roseus	Zea mays	Glycine max	Zea mays	Triticum aestivum	Zea mays	Zea mays	Petunia x hybrida	Sorghum bicolor	Nicotiana tabacum	Pisum sativum	Glycine max	Nicotiana tabacum	Zea mays	Zea mays	Zea mays	Zea mays	Mentha spicata
X95342	X70824	AB037245	AB037244	Y09424		1189	X70981	X09423	X09424	M32885	X71654	D14990	233875	AF022157	AF122821	AF022459	AB037244	AB037245	L24438	X70982	AF166332	AJ238612	X81827	AF022460	X81828	AB036772	X11368	X81831	AF155332	AF029858	X96784	AF218296	D83968	X95342	X11404	X81829	Y11403	X81830	AF124815
CAA64635.1	CAA50155.1	BAB40324.1	BAB40323.1	CAA70576.1		SEQ ID NO.	CAA50312.1	CAA70575.1	CAA70576.1	AAA32913.1	CAA50645.1	BAA03635.1	CAA83941.1	AAB94584.1	AAF27282.1	AAB94588.1	BAB40323.1	BAB40324.1	AAA19701.1	CAA50313.1	AAD47832.1	CAB56503.1	CAA57421.1	AAB94589.1	CAA57422.1	BAB40322.1	CAA72196.1	CAA57425.1	AAD56282.1	AAC39318.1	CAA65580.1	AAG44132.1	BAA12159.1	CAA64635.1	CAA72208.1	CAA57423.1	CAA72207.1	CAA57424.2	AAD44150.1
Oryza sativa Ivcopersicon esculentum		Lycopersicon esculentum		Lycopersicon esculentum	Lycopersicon esculentum	Alnus glutinosa	Lycopersicon esculentum		Lycopersicon esculentum	Lycopersicon esculentum	Glycine max	Glycine max	Oryza sativa	Oryza sativa	Gossypioides kirkii	Lycopersicon esculentum	Hordeum vulgare			Cicer arietinum	rrhiza	Glycyrrhiza echinata		Cicer arietinum	Cicer arietinum	Helianthus tuberosus	Helianthus tuberosus	Persea americana	Petunia x hybrida	Glycine max	Pisum sativum	Nicotiana tabacum	Pisum sativum	Cicer arietinum	Glycine max	Eschscholzia californica	Pisum sativum	Eustoma grandiflorum	Glycine max
AP002899 X17276	Y10149	X17275	X95270	X18932	X18931	X85975	AJ006380	AJ006376	X17277	AJ006377	AF036960	AF160513	AB037371	AF200467	AF201883	AJ270956	AJ222782		1188	AJ239051	AB001379	AB022732	AB025016	AJ238439	AJ012581	AJ000478	AJ000477	M32885	AF155332	AF022461	AF175278	X96784	U29333	AJ249800	D83968	AF014802	AF218296	U72654	D86351
BAB21149.1 CAA76725.1	CAA71234.1	CAA76724.1	CAA64566.1	CAB67120.1	CAB67119.1	CAA59964.1	CAA07001.1	CAA06997.1	CAA76726.1	CAA06998.1	AAD02075.3	AAG38994.1	BAB03290.1	•	AAF31406.1	CAB65690.1	CAA10987.1			CAB43505.1	•	BAA74465.1		CAB41490.1		CAA04117.1	CAA04116.1	AAA32913.1	AAD56282.1	•	AAG09208.1	CAA65580.1	AAC49188.2	CAB56742.1	BAA12159.1	AAC39454.1	AAG44132.1	AAB17562.1	BAA13076.1

Daucus carota	Oryza sativa	Glycine max	Oryza sativa	Orvza satiwa	Zea mavs	Clumbana Clumbana	Diame max	Finds Sylvestris	Malus x domestica	Zea mays	Oryza sativa	Nicotiana tabacum	Brassica napus	Oryza sativa	Oryza sativa	Glycine max	Glycine max			Spinacia oleracea	drachie max	Glucine max	Stylosanthes humilis	Spinacia olerades	Nicotiana tabacum	Spinacia oleracea	Linum usitatissimum	Vigna angularis	Gossypium hirsutum	Spinacia oleracea	Petroselinum crispum	Scutellaria baicalensis	Oryza sativa	Oryza sativa	Arachis hypogaea	Oryza sativa	Populus kitakamiensis	Pinus sylvestris	Scutellaria baicalensis	Linum usitatissimum
U93048	X89226	AE197947	AP000559	AP000391	AF023164	AF197946	73707CT.4	10.50.50.4v	AE USS12/	AF023165	AF119222	AF142596	AY028699	AC073405	L27821	AF249318	AE249317	1103	V16778	1151194	M37636	U51193	L37790	Y10462	AB027752	Y10464	U59284	D11337	AF155124	X10470	L36981	AB024437	AP001366	AP001383	M37637	AP001383	D11102	AE291667	AB024439	L24120
AAB61708.1	CAA61510.1	AAF59906.1	BAA84787.1	BAA83373.1	AAC27894.1	AAF59905.1	CAC20842 1	1202012.1	1.0100000	AAC2/895.1	AAD2/6/5.1	AAr 66615.1	AAK21965.1	AAG03090.1	AAA33915.1	AAF91337.1	AAr91336.1	OK OT ORS		AAD11484_1	AAB06183.1	AAD11483.1	AAB02554.1	CAA71488.1	BAA82306.1	CAA71490.1	AAB02926.1	BAA01950.1	AAD43561.1	CAA/1496.1	AAA98491.1	BAA//38/.1	BAA92422.1	BAA92497.1	AAA32676.1	BAA92500.1	BAA01877.1	AAG02215.1	BAA77389.1	AAB48184.1
		tother sactiva	Lophopyrum elongatum	Lophopyrum elongatum	Brassica napus	Populus nigra	Populus nigra	Oryza sativa	Bragata actaga	Orvin satista	Glycine max	Glychie man	Turonevelon competent		Troops of the section	Nicotions tobour	Catharanthus roseus		Lycopersicon esculentum	Lycopersicon esculentum	Zea mays	Lycopersicon hirsutum	Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Nicotiana tabacum	Oryza sativa	Oryza sativa Inconstsion nimetallifelline	Dancis carets Dancis carets	במתנת כמוסום			Incorporation componentum	artenation escurencim	מייייייייייייייייייייייייייייייייייייי		Lycopersicon esculentum	Glycine max	Glinian max	פראכדום וומא
1190	ABO23482	7512136	AE131222	AE 339 / 4 /	AX007545	AB041503	AB041504	69000	AX028699	AC073405	AF249318	AF249317	028007	067422	AF318490	AF142596	273295	AF290411	059316	AF220603	AF023164	AF318491	U02271	059315	AE220602	AF302082	AFOOLSSI	AF001551	U93048		1192	AF243040	1158474	DE243041	127341	150472	С	AF 244668	AF244890	000000000000000000000000000000000000000
ON OT CER	BA78764 1	1.50/6/3466	L. 06.51.74.46	T. 6/07	AAGIOOZB.I	BAASASOS. I	BAA94510.1	CAB51834.1	AAK21965.1	AAG03090.1	AAF91337.1	AAF91336.1	AAC61805.1	AAB09771.1	AAK11566.1	AAF66615.1	CAA97692.1	AAG33377.1	AAB47421.1	AAF76313.1	7894.1	AAK11567.1	8914.1	AAB4/423.1	•	AAG23966.1 Bbbg2954 1	•	AAB47424.1	AAB61708.1	•	SEQ ID NO. 1		AAC12254.1	AAK28346 1	AAA33715 1	ר בפכנוטממ	AAC1233.1	AAF91322.1	AAF91324.1	•

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	Lycopersicon esculentum Catharanthus roseus Chlamydomonas reinhardtii Oryza sativa Solanum tuberosum subsp.	Phaseolus vulgaris Lupinus luteus Lupinus luteus Zea mays Zea mays Vicia faba Solanum commersonii Euphorbia esula Capsicum annuum	Pseudotsuga menziesii Digitalis lanata Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Oryza sativa Olea europaea	Borago officinalis Cuscuta reflexa Olea europaea Brassica oleracea Nicotiana tabacum Petunia x hybrida Petunia x hybrida Cucumis sativus Glycine max Hordeum vulgare Orvza sativa
Y08273 L29469 M55018 L29470	MS5019 X85185 AF052206 L29471 AF126551	X74403 Y16088 AF178458 M55021 X68678 L32095 U92087 AF242312	AJ132763 X97255 Z14081 1200 X71441 X80008 X75670 AJ001369	U79011 L22209 AJ001370 M87514 X68140 AF098510 AF233640 AF233640 AF233640 AF233640 AF233640 AF233640 AF233640 AF233640
CAA69598.1 AAA57045.1 AAA62706.1 AAA57046.1	AAA63543.1 CAA59468.1 AAC05639.1 AAA57044.1 AAD22975.1 tuberosum	CAA52414.1 CAA76054.1 AAA63403.1 CAA48638.1 AAA64430.1 AAB51386.1 AAF65770.1		AAC49701.1 AAA62621.1 CAA04703.1 AAA32990.1 CAA48240.1 AAD10774.1 AAF60299.1 SEQ ID NO. BAA08910.1 AAD16897.1 BAA25168.1
Cucumis sativus Glycine max Armoracia rusticana Nicotiana sylvestris	Oryza satīva Spinacia oleracea Scutellaria baicalensis Spinacia oleracea Stylosanthes humilis Raphanus satīvus	Spinacia oleracea Hordeum vulgare Lycopersicon esculentum Cucumis sativus Mercurialis annua Oryza sativa Oryza sativa Populus nigra Hordeum vulgare	Striga asiatica Nicotiana tabacum Lycopersicon esculentum Triticum aestivum Gossypium hirsutum Oryza sativa subsp. japonica	Lotus japonicus Glycine max Vigna aconitifolia Lotus japonicus Prunus armeniaca Lotus japonicus Lotus japonicus Lotus japonicus Lotus japonicus Pisum sativum Mesembryanthemum crystallinum Oryza sativa
M91372 AF145350 X57564 M74103	AF014468 Y10467 AB024438 Y10468 L77080 X91172	2 2 2	AF043234 J02979 L13654 X85230 1195 AF150630 AF030052	1196 273940 L14930 L14928 273941 U82219 273942 273943 X65650 U87142 D13758
AAA33129.1 AAD37376.1 CAA40796.1 AAA34050.1	AAC49819.1 CAA71493.1 BAA77388.1 CAA71494.1 AAB67737.1 CAA62597.1	AAF63024.1 AAA32973.1 CAA64413.1 AAA33121.1 CAA62615.1 BAA03911.1 AAC49821.1 BAA11853.1 CAB99487.1	· ~-	SEQ ID NO. 1 CAA98168.1 AAA3404.1 AAA34242.1 CAA98169.1 AAB71504.1 CAA98170.1 CAA46600.1 AAB47557.1 BAA02904.1 SEQ ID NO. 1

	336	
Oryza sativa Triticum aestivum Sorghum bicolor Oryza sativa Oryza sativa Malus x domestica Brassica napus	Lotus japonicus Lycopersicon esculentum Lycopersicon esculentum Nepenthes alata Brassica napus Limnanthes douglasii Simmondsia chinensis Brassica napus Brassica napus Connaliella salina Zea mays	Zea mays Brassica napus Brassica napus Brassica rapa Brassica rapa Brassica oleracea Vitis vinifera Pyrus pyrifolia Malus x domestica Nicotiana tabacum Castanea sativa Vitis vinifera Oryza sativa Prunus avium Brassica rapa Prunus avium Brassica rapa Prunus avium Brassica rapa Pyeudotsuga menziesii Cestrum elegans
AF091458 AB007504 U49734 U78892 AF058698 U78948 1203 AF306518	AJ279059 X95098 AF118858 AF080541 AF188744 1205 AF247134 U37088 AF099563 U50771 AF333040 AJ291728	AJ291728 AF054497 AF054499 AF054499 AF054500 AJ243427 AB006009 AJ243427 AF090143 AB000834 AJ242828 AF195654 AJ242113 AB0142113 U71244 AJ31731 AB031870 U57787
AAF04972.1 BAA33457.1 AAB50187.1 AAC49817.1 AAF19048.1 AAC83170.1 SEQ ID NO.	CAC10555.1 CAA64475.1 AAG11397.1 AAD16012.1 AAF01774.1 SEQ ID NO. AAG28600.1 AAG28600.1 AAA9186.1 AAA96054.1 AAA96054.1 AAA11266.1 CAC17746.1	
Hordeum vulgare Hordeum vulgare Hordeum vulgare Cucumis sativus Hordeum vulgare Chlamydomonas reinhardtii Hordeum vulgare	Lycopersicon esculentum Ipomoea batatas Paulownia kawakamii Ipomoea batatas Solanum tuberosum Petunia x hybrida Oryza sativa Hordeum vulgare Oryza sativa Canavalia lineata Solanum tuberosum	Petunia x hybrida Cichorium intybus Zea mays Ceratopteris richardii Physcomitrella patens Physcomitrella patens Capsicum annuum Petunia x hybrida Oryza sativa Oryza sativa Oryza sativa Picea abies Lolium temulentum Hordeum vulgare Petunia x hybrida Oryza sativa Medicago sativa Medicago sativa Medicago sativa Iolium temulentum Nicotiana tabacum
X86101 X92403 D88382 D67088 X86102 AF305613 AF294753	1202 AF275345 AF345246 AF06080 AF346303 AF008651 AF335237 AD003322 AJ249141 AJ293816 AF144623 AF008652	AF335243 AF101420 AF112149 D89671 AF150931 AF072534 AF335244 U78890 AB072534 AF035378 AF035378 AF035379 AF035379 AF035379 AF035379 AF035379 AF035379 AF035379
CAA60054.1 CAA63140.1 BAA25167.1 BAA11091.1 CAA60055.1 AAG1962.1 AAG02480.1	84444444444	AAK21256.1 AAC84133.1 AAG0919.1 BAA25246.1 AAG09135.1 AAG09135.1 AAK21257.1 AAK21257.1 BAAR184.1 BAAR1257.1 AAK21252.1 AAB1863.1 AAB11625.1 CAB97354.1 AAB51377.1 CAB51377.1 CAA67968.1

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Lophopyrum elongatum Oryza sativa Zea mays Nicotiana tabacum Oryza sativa Oryza sativa Nicotiana tabacum Catharanthus roseus Glycine max Glycine max Populus nigra Oryza sativa Glycine max	Mitochondrion Marchantia Plastid Oryza sativa Brassica napus Citrus sinensis Sesamum indicum Bromus secalinus Zea mays Oryza sativa Hordeum vulgare Oryza sativa Elaeis guineensis Perilla frutescens Sesamum indicum Perilla frutescens Glycine max Perilla frutescens Glycine max Perilla frutescens
AF131222 AB023482 U67422 AF142596 AC073405 00069 AF302082 Z73295 AF244890 AF244890 AF244890 AF244890 AF197947 AF197947	M68929 X15901 1212 X61937 X58000 S37032 X63779 X78118 248450 AF091840 U72411 U13701 U43930 X82678 AF022148 AF022148 AF147758 AF210696 U97700 AF210697 AF210697 AF211746 U09118
AAF43496.1 BAA78764.1 AAB09771.1 AAG03090.1 CAB51834.1 AAG25966.1 CAA97692.1 AAF91323.1 BAA82556.1 BAA82556.1 BAA825906.1	AAC09420.1 polymorpha CAA33994.1 SEQ ID NO. CAA41064.1 AAB22218.2 CAA55008.1 CAA55008.1 CAA88360.1 AAD42942.1 AAB67992.1 AAB67992.1 AAB67995.1 AAC02239.1 CAA57995.1 AAC3281.1 AAC41080.1 AAC43516.1 AAG43516.1 AAG43516.1 AAG43516.1 AAG43516.1 AAG43516.1 AAG43516.1 AAG43516.1 AAG4351.1
Vitis riparia Nicotiana tabacum Vitis vinifera Vitis vinifera Oryza sativa Cicer arietinum Nicotiana tabacum Nicotiana tabacum Mesembryanthemum crystallinum Zea mays Medicago sativa Nicotiana tabacum Lotus japonicus Lotus japonicus Lotus japonicus	Mesembryanthemum crystallinum Nicotiana tabacum Fagus sylvatica Mesembryanthemum crystallinum Fagus sylvatica Cryza sativa Zea mays Mesembryanthemum crystallinum Mesembryanthemum crystallinum Mesembryanthemum crystallinum Mesembryanthemum crystallinum Fagus sylvatica Zea mays Zea mays Zea mays Zea mays Zea mays Glycine max Glycine max Glycine max Oryza sativa Brassica napus Populus nigra Populus nigra Lophopyrum elongatum
AF178653 AB029918 AF003007 AF227324 U77657 AJ010501 X15224 X15224 X15223 X15223 X1523 X1523 AF075580 AF213455 Y11607 AJ277086 AF092431 AF092432	AF075579 AJ277087 AJ277087 AJ277087 AJ298987 AJ277744 AF079355 AF09355 AF09355 AF023164 AF023164 AF023164 AF023164 AF023165 AY028699 U28007 AF249317 AF249317 AF249318 AF00367 AF249318 AF00367 AF00367 AF00367 AF00367 AF00367 AF00367 AF000367 AF000367 AF000367 AF000367 AF000367 AF000367 AF000367 AF000367 AF000367
	AAC36697.1 CAC10359.1 CAB90633.1 AAC36700.1 CAC09575.1 CAB90634.1 AAC26828.1 AAC26828.1 AAC35951.1 AAC35951.1 AAC3599.1 CAC09576.1 SEQ ID NO. 1 AAC27895.1 AAC27895.1 AAC27895.1 AAC27895.1 AAC27895.1 AAC27895.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1 AAC1805.1

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Medicago sativa Phaseolus vulgaris	Medicago sativa	Glycine max	Pisum sativum	Cicer arietinum	Lotus corniculatus	Lotus corniculatus				Vitis vinifera	Vitis vinifera	Pyrus pyrifolia	Nicotiana tabacum	Malus x domestica	Malus x domestica	Oryza sativa	Prunus avium	Brassica rapa	Castanea sativa	Cestrum elegans	Pseudotsuga menziesii	Nicotiana tabacum	Avena sativa	Oryza sativa	Vitis riparia	Cicer arietinum	Nicotiana tabacum	Nicotiana tabacum	Vitis vinifera	Vitis vinifera	Thaumatococcus daniellii			Zea mays	Zea mays	Zea mays			
M91079 X16470	M91080	AJ004902	003433	AB024988	AF307301	AF308141	AF308140		1215	AF195654	AF195653	AB006009	AB000834	AJ243427	AE090143	AL442113	U32440	071244	AJ242828	AB031870	AJ131731	AB029918	U57787	077657	AF178653	AJ010501	X15224	X15223	AE003007	AF227324	J01209		1216	AB060130	AB042268	AB042260	AB042267	AB042269	AB024291
AAB41524.1 CAA34490.1	AAB41480.1	CAA06202.1	AAA50174.1	BAA76416.1	AAG32050.1	AAG30542.1	AAG30541.1		SEQ ID NO.	AAF06347.1	AAF06346.1	BAA28872.1	BAA74546.2	CAC10270.1	AAC36740.1	CAC09477.1	AAB38064.1	AAB95118.1	CAB62167.1	BAA95017.1	CAA10492.1	BAA95165.1	AAB02259.1	AAB53368.1	AAD55090.1	CAA09228.1	CAA33293.1	CAA33292.1	AAB61590.1	AAF82264.1	AAA93095.1		SEQ ID NO.	BAB41137.1	BAB20581.1	BAB17300.1	BAB20580.1	BAB20582.1	BAA82873.1
Glycine max Arachis hypoqaea	Sesamum indicum	Helianthus annuus	Arachis hypogaea	Hordeum vulgare	Fagopyrum esculentum	Brassica napus	Glycine max	Brassica napus	Zea mays	Daucus carota	Oryza sativa subsp. indica	sativa	Helianthus annuus	Zea mays		Brassica oleracea	Brassica napus	Brassica napus	Brassica napus			Arabidopsis lyrata	Raphanus sativus	Vitis vinifera	Citrus sinensis	Elaeagnus umbellata	Petunia x hybrida	Petunia x hybrida	Callistephus chinensis	Petunia x hybrida	Dianthus caryophyllus	Ipomoea purpurea	Petunia x hybrida	Ipomoea batatas	Zea mays	Malus sp.	Malus sp.	Pueraria montana var. lobata	Phaseolus vulgaris
X60773 AF325917	AF302807	X62352	AF325918	X82677	AF288622	X82019	X60772	X82020	J05212	047099	AF019212	U43931	X78679	U13702		AF117126	X95554	X95559	X08986		1213	AJ287322	AF031921	X75963	AB011794	AF061808	X14589	X00852	267980	AF233637	567989	AF028238	X14590	AB037396	222760	X68978	X68979	D63577	215046
CAA43183.1 AAK13449.1	AAG23840.1	CAA44224.1	AAK13450.1	CAA57994.1	AAG01171.1	CAA57544.1	CAA43182.1	CAA57545.1	AAA67699.1	AAB01098.1	AAD10240.1	AAC02240.1	CAA55348.1	AAA68066.1	CAA64801.1	AAD24547.1	CAA64800.1	CAA64805.1	CAA70173.1			CAB94968.1	AAB87071.1	CAA53577.1	BAA36552.1	AAC16013.1	CAA32729.1	CAA68769.1	CAA91921.1	AAF60296.1	CAA91931.1	AAB86474.1	CAA32730.1	BAA90334.1	CAA80441.1	CAA48774.1	CAA48775.1	BAA09795.1	CAA78763.1

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Daucus carota Nicotiana tabacum Oryza sativa Brassica napus Zea mays Spinacia oleracea Arabidopsis lyrata subsp.	Arabis gemmifera Oryza sativa Oryza sativa Leavenworthia crassa Spinacia oleracea Dioscorea tokoro Clascorea tokoro Clarkia arcuata Zea mays Clarkia lewisii Clarkia lewisii	()
U93048 AF142596 U72724 AY028699 AF023164 1222 AJ000265 AB044969	AB044968 D45217 D45218 AF054455 AJ000266 D88928 D88926 D88922 D88922 D88922 D88923 D88923 D88923 D88925 X89395 X89395 X89384 X71084	X80666 X89394 X89389 X14129 X89396 X89390 X89392 X89397 X14130
AAB61708.1 AAF66615.1 AAB2756.1 AAK21965.1 AAC27894.1 SEQ ID NO. CAA03982.1 BAB17656.1	petraea BAB17655.1 BAA08148.1 BAA08149.1 AAC08411.1 CAA03983.1 BAA23184.1 BAA23184.1 BAA23181.1 BAA23179.1 BAA23177.1 BAA23177.1 BAA23182.1 BAA23185.1 BAA23180.1 CAA61575.1 CAA61576.1	CAA56693.1 CAA61569.1 CAA61569.1 CAB55566.1 CAA6157.1 CAA61570.1 CAA61570.1 CAA61570.1 CAA61572.1 CAA61577.1
Zea mays Zea mays Dianthus caryophyllus Zea mays Zea mays Chlamydomonas reinhardtii Chlamydomonas reinhardtii	Oryza sativa Catharanthus.roseus Catharanthus roseus Atriplex hortensis Nicotiana tabacum Prunus armeniaca Oryza sativa Nicotiana tabacum	0 4 4 4 4
AB042261 AB031012 AE339732 AB031011 AB004882 AF174532 AF174480	1219 AB023482 AJ251249 AJ251250 AF274033 AJ299252 AF071893 AB036883 AF211527 AF211530 AF211531 AF211531 AF21531 AF21531 AF21531 AF21531 AF29803 AF298231	U77888 AF244890 AF244888 AF053127 AP00059 AF197946 AF172282 X89226 U72725
BAB20579.1 BAA85113.1 AAK14395.1 BAA85112.1 BAA75253.1 AAD55941.1 AAD55945.1	SEQ ID NO. 1 BAA78738.1 CAB96899.1 CAB96890.1 AAF76898.1 AAC24587.1 BAB03248.1 BAB16083.1 AAG43545.1 AAG43549.1 AAF23899.1 AAF52899.1 AAF63205.1 BAAC9619.1 BAAC9619.1 AAC62619.1 AAC62619.1 AAC62619.1 AAC62619.1	AAB36558.1 AAF91322.1 AAC36318.1 BAA84787.1 BAAF59905.1 AAF591323.1 AAF31426.1 CAA61510.1

CAA61565 1	XRQ3R5	Clarkia lowisti	1 07100044	0001100	· · · · · · · · · · · · · · · · · · ·
CAA45616.1	X64332		AAA34308 1	AF 031239 M55604	ricea mariana rittinim seetimim
CAA61571.1	X89391		AAA34265 1	M90663	Fritions sootium
BAA23205.1	AB006088	Dioscorea quinqueloba	AAA34266.1	M90664	
BAA22035.1	AB006617	Dioscorea nipponica	CAA71762.1	Y10804	Nicotiana tabadum
BAA22037.1	AB006619	Dioscorea septemloba			
BAA22038.1	AB006620	Dioscorea tenuipes	SEQ ID NO.	1229	
BAA23175.1	D88920	Dioscorea tenuipes	CAA55693.1	X79086	Zea mavs
BAA22033.1	AB006615	Dioscorea gracillima	CAA55691.1	X79085	Zea mays
BAA22036.1	AB006618	Dioscorea quinqueloba	AAF97508.1	AF242298	Orvza sativa
BAA22034.1	AB006616	Dioscorea gracillima			
CAA50403.1	X71085	Clarkia lewisii	SEQ ID NO.	1234	
AAK07826.1	AF293478	Leavenworthia stylosa	AAA50763.1	U15605	Nicotiana glutinosa
AAK07825.1	AF293477	Leavenworthia stylosa	CAA08798.1	AJ009720	Solanum tuberosum
AAK07822.1	AF293474	Leavenworthia stylosa	AAG09951.1	AF175388	Glycine max
AAK07821.1	AF293473	Leavenworthia stylosa	AAG43546.1	AF211528	Nicotiana tabacum
AAK07820.1	AF293472	Leavenworthia stylosa	CAC35326.1	AJ310151	Linum usitatissimum
			CAC35339.1	AJ310164	Linum usitatissimum
SEQ ID NO.	1224		CAC35321.1	AJ310150	Linum usitatissimum
BAB03447.1	AP002817	Oryza sativa	CAC35329.1	AJ310154	Linum usitatissimum
BAA92400.1	AP001366	Oryza sativa	CAC35338.1	AJ310163	Linum usitatissimum
CAA63102.2	X92205	Petunia x hybrida	CAA08797.1	AJ009719	Solanum tuberosum
CAA63101.1	X92204	Petunia x hybrida	CAC35330.1	AJ310155	Linum usitatissimum
BAA84803.1	AP000559	Oryza sativa	CAC35337.1	AJ310162	Linum usitatissimum
1	•		CAC35334.1	AJ310159	Linum usitatissimum
SEQ ID NO.	1226		AAK28810.1	AF310964	Linum usitatissimum
AAD43046.1	AF124045	Sorghum bicolor	AAK28806.1	AF310960	Linum usitatissimum
	1		CAC35333.1	AJ310158	Linum usitatissimum
SEQ ID NO.	1227		CAC35325.1	AJ310150	Linum usitatissimum
AAC49832.1	AF005492	Oryza sativa	CAC35328.1	AJ310153	Linum usitatissimum
AAC04862.1	AF046934	Paulownia kawakamii	CAC35336.1	AJ310161	Linum usitatissimum
BAA97100.1	AB040471	Nicotiana tabacum	AAK28803.1	AF310958	Linum usitatissimum
CAA05898.1	AJ003142	Lycopersicon esculentum	CAC35327.1	AJ310152	Linum usitatissimum
CAA52015.1	X73635	Lycopersicon esculentum	CAC35332.1	AJ310157	Linum usitatissimum
BAA96162.1	AP002092	Oryza sativa	AAK28811.1	AF310966	Linum usitatissimum
CAA71687.1	Y10685	Glycine max	AAK28812.1	AE310968	Linum usitatissimum
CAA41453.1	X58577	Petroselinum crispum	CAC35331.1	AJ310156	Linum usitatissimum
CAA70216.1	Y09013	Triticum aestivum	CAC35323.1	AJ310150	Linum usitatissimum
			AAK28805.1	AF310960	Linum usitatissimum
	1228	-	AAK28808.1	AF310961	Linum usitatissimum
CARUSOIS.I	AJOI1418	Lycopersicon esculentum	AAB47618.1	U73916	Linum usitatissimum

Petunia x hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida	Petunia x hybrida Brassica rapa Brassica rapa Brassica rapa Brassica rapa Petunia x hybrida Petunia capa	Petunia x hybrida Nicotiana tabacum Petunia x hybrida Oryza sativa Petunia x hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida	Oryza sativa Oryza sativa Oryza sativa Oryza sativa	Brassica oleracea var. Brassica rapa Brassica napus Triticum aestivum
1247 AB006599 AB006600 AB000451 AB006601 AB006603	AB006598 AB000452 AB006604 AB006605 AB0035133 AB006597 AB035132 U76554 U76555 AB000455 AB000455 AR119050	D26084 AE053077 AB000453 AE332876 D26083 D26086 AB006606 AB000456	1250 AP000367 1253 D21836 D26547 U92541	AF273844 AB010434 U59379 AF286593
	BAA21920.1 BAA19111.1 BAA21926.1 BAA21927.1 BAA96071.1 BAA96070.1 AAB53260.1 AAB53261.1 BAA19114.1 BAAD26942.1	BAA05077.1 AAC06243.1 BAA19112.1 AAK01713.1 BAA05076.1 BAA05079.1 BAA21928.1 BAA19926.1		AAG35777.1 alboglabra BAA25681.1 AAB53694.1 AAF88067.1
	Linum usitatissimum Clycine max Glycine max Glycine max Glycine max Glycine max	Malus x domestica Gossypium hirsutum Oryza sativa Picea mariana	Atriplex gmelini Oryza sativa Ipomoea nil Ipomoea nil Citrus x paradisi Zea mays	Populus tremula x Populus Zea mays
AF310962 AF093638 AF093642 AF093641 U27081 AF093645 AF093644	AF093646 AF093640 AF093643 AF093649 AF093649 U27081 AF175389 AF175395 AF175394 AF175399	1237 AF220203 AF336281 1238 AF106844 AF051233	AB038492 AB021878 AB033990 AY028416 AF307944	1245 AF115543 AJ011794
AAK28809.1 AAD25965.1 AAD25969.1 AAD25968.1 AAA31022.1 AAA25972.1 AAD25971.1	AAD25973.1 AAD25973.1 AAD25970.1 AAD25976.1 AAD25975.1 AAD25966.1 AAG09952.1 AAG01052.1 AAG09952.1	SEQ ID NO. 1 AAF27919.1 AAK19614.1 SEQ ID NO. 1 AAG17476.1 AAG32134.1 SEQ ID NO. 1		SEQ ID NO. 1 AAF21982.1 tremuloides CAB65535.1

Zea mays			Tripsacu				Tripsa					Zantedeschia aethiopica	Pisum sativum				~	Nicotiana sylvestris	Nicotiana tabacum	Helianthus annuns	lentum	Gossypium hirsutum	Hordeum vulgare	Helianthus annuus	Chlamydomonas reinhardtii	Chlamydomonas sp. W80	Lycopersicon esculentum	Triticum aestivum	Betula pendula		Diom cottiens	Fisum sativum			M + + + + + + + + + + + + + + + + + + +	Cucurbita sp.	Spinacia Oleracea	Oryza sativa
1.20621	AF072448	AE072450	U89270	AF169018	AF097651	AF053638	U89271	AF053639	U21801	i))	1259	AE053311	AJ000508	AJ238745	AJ238697	AJ250951	D63425	X60219	AB041518	X14707	X14762	AF037051	AJ238744	X14429	AF014927	AB009083	Y1.4763	AJ010455	AJ279689	1261	1111716	AF115574	M18250	1264	1180071	D14044	J03492	AF022740
AAC37345.1	AAC35341.1	AAC35343.1	AAB57737.1	AAF89645.1	AAF04253.1	AAF04193.1	AAB57738.1	AAE04194.1	AAB00109.1		SEQ ID NO.	AAC78466.1	CAA04142.1	CAB59895.1	CAB59893.1	CAB96145.1	BAA22194.1	CAA42780.1	BAB16430.1	CAA75009.1	CAA75054.1	AAB94892.1	CAB59894.1	CAA74775.1	AAB66330.1	BAA83594.1	CAA75055.1	CAA09194.1	CAB66331.1	SEO TO NO		AAD25355.1	AAA33662.1	ON OT ORS		BAA03131.1	AAA34030.1	AAB82143.1
Picea mariana	Oryza sativa	Chlamydomonas reinhardtii	Ricinus communis	Chlamydomonas reinhardtii	Triticum turgidum subsp. durum	Pisum sativum		Fagopyrum esculentum	Nicotiana tabacum	Phalaris coerulescens	Oryza sativa	Hordeum bulbosum	Phalaris coerulescens	Lolium perenne	_	Spinacia oleracea	Nicotiana tabacum	Secale cereale	Secale cereale	Hevea brasiliensis	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Oryza sativa		Brassica napus	brassica napus	Spinois alone	Spinacia oleracea Mesembrvanthemum crystallinum	muv.	Pisum sativum	Brassica napus		Picea abies	Ipomoea trifida	ы	Nicotiana tabacum	Nicotiana tabacum
AF051206	AB053294	X78822	Z70677	X80887	AJ001903	035831	X76269	D87984	X58527	AF159388	AP002912	AF159385	AF159389	AF159387	X51462	X51463	211803	AF186240	AF159386	AF133127	X78821	X80888	X62335	AJ005841	AJ005840	023380	1176931	V14959	AE069314	X63537	035830	AF018174	1255	X74115	AF072449	AE072447	AJ223177	AJ223178
AAC32111.1	BAB20886.1	CAA55399.1	CAA94534.1	CAA56850.1	CAA05081.1	AAC49358.1	CAA53900.1	BAA13524.1	CAA41415.1	AAD49233.1	BAB39913.1	AAD49230.1	AAD49234.1	AAD49232.1	CAA35826.1	CAA35827.1	CAA77847.1	AAD56954.1	•	AAD33596.1	CAA55398.1	•	•	•	CAAU 6 / 35 . I	AAB33693.1	1.9070378.I	CAN 33082 1		CAA45098.1	AAC49357.1	AAC04671.1	SEQ ID NO. 1	CAA52213.1	AAC35342.1	AAC35340.1	CAA11153.1	CAA11154.1

Glycine max		Lycopersicon pimpinellifol Lycopersicon pimpinellifol		Populus nigra	Brassica napus	Lycopersicon esculentum	Lycopersicon hirsutum		Orvza sativa	Lycopersicon esculentum			Phaseolus vulgaris	Oryza sativa	Catharanthus roseus		Glycine max		Glycine max 61	Glycine max	Glycine max	Oryza sativa	Lycopersicon hirsutum	Oryza sativa	Oryza sativa	Lycopersicon esculentum	Lycopersicon esculentum	Malus x domestica	Populus nigra	Lycopersicon pimpinellifolium	Brassica napus	Lycopersicon pimpinellifollum	Lycopersicon pimpinellifolium	Lycopersicon hirsutum	Populus nigra	Oryza sativa	Lycopersicon pimpinellifolium		Lycopersicon pimpinellifolium
AF244890	7150217	AF220602	AB041504	AB041503	AY007545	AF220603	AF318492	AF197946	AB023482	059318		1270	AF285172	69000	273295	AX028699	AF197946	AF197947	AF244890	AF244888	AF244889	AB023482	AF318491	AP000559	AP000391	AF220603	059316	AF053127	AB041503	AF220602	AX007545	059315	U02271	AF318490	AB041504	AC073405	059317	AF318493	AF220602
AAF91324.1	T. CZCZC IIII	AAF76307.1	BAA94510.1	BAA94509.1	AAG16628.1	AAF76314.1	AAK11568.1	AAF59905.1	BAA78764.1	PAB47422.1		SEQ ID NO.	AAG00510.1	CAB51834.1	CAA97692.1	AAK21965.1	AAF59905.1	AAF59906.1	AAF91324.1	AAF91322.1	AAF91323.1	BAA78764.1	AAK11567.1	BAA84787.1	BAA83373.1	AAF76313.1	AAB47421.1	AAC36318.1	BAA94509.1	AAF76306.1	AAG16628.1	AAB47423.1	AAC48914.1	AAK11566.1	BAA94510.1	AAG03090.1	AAB47424.1	AAK11569.1	AAE76307.1
Lycopersicon esculentum Medicado sativa	Nicotiana tabacum	Lactuca sativa			Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Hordeum vulgare	Lycopersicon esculentum	Oryza sativa		Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Lycopersicon esculentum	Oryza sativa	Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Lycopersicon hirsutum	Oryza longistaminata	Oryza sativa			Phaseolus vulgaris	Brassica napus	Catharanthus roseus	Oryza sativa					Lycopersicon pimpinellifolium			Lycopersicon pimpinellifolium	Zea mays	Lycopersicon hirsutum	Glycine max	Oryza sativa
X92888 AF082874	062485	AF162196	,	1268	AF053995	AF053993	AF053998	AF053994	AF166121	AF053997	AP002539	AP002521	AF053996	AJ002236	AJ002237	AL117265	AJ002236		AJ002235	072723	037133	,	1269	AF285172	AY028699	273295	69000	AF318491	AF220603	059316	AF318490	059315	AC073405	AF220602	002271	067422	AF318493	AF197947	X89226
CAA63482.1 AAC32392.1	AAC33509.1	AAF03097.1			AAC78593.1	AAC78591.1	AAC78596.1	AAC78592.1	AAD50430.1	AAC78595.1	BAB08215.1	BAA96776.1	AAC78594.1	CAA05276.1	CAA05279.1	CAB55409.1	CAA05274.1	AAA65235.1	CAA05268.1	AAC80225.1	AAC49123.1			AAG00510.1	AAK21965.1	CAA97692.1	CAB51834.1	AAK11567.1	AAF76313.1	AAB47421.1	AAK11566.1	AAB47423.1	AAG03090.1	AAF76306.1	AAC48914.1	AAB09771.1	AAK11569.1	AAE59906.1	CAA61510.1

Solanum tuberosum Psophocarpus tetragonolobu Solanum tuberosum Gossypium hirsutum Persea americana Nicotiana tabacum Solanum tuberosum Medicago sativa Medicago sativa Medicago truncatula Phaseolus vulgaris Medicago truncatula Pisum sativum Phaseolus vulgaris Vigna sesquipedalis Vigna unguiculata Theobroma cacao	Nicotiana tabacum Citrus sinensis Armoracia rusticana Oryza sativa Populus balsamifera subsp.	·A	~ ~
U02607 AB048531 XU7130 U60197 Z78202 X64518 X15494 U83591 U83592 M13968 X10373 L37876 S43926 AF307511 X88800	1272 AJ249786 U82974 1273 X57564 D49551 X97351	D84400 AJ242742 D30653 D83225 AF149277 AF149280 D83224 X97349	D38051 AP001383 X71593 Y19023
AAA17409.1 BAB13369.1 CAA30142.1 AAB67842.1 CAA45821.1 CAA33517.1 AAB41324.1 AAB41325.1 AAA33756.1 CAA71402.1 AAA33756.1 CAA71402.1 AAB23263.1 AAB23263.1	SEQ ID NO. CAB57457.2 AAB57668.1 SEQ ID NO. CAA40796.1 BAA08499.1 CAA66037.1	trichocarpa BAA84764.1 CAB94692.1 BAA06335.1 BAA11853.1 AAD37427.1 AAD37430.1 BAA11852.1 CAA66035.1 trichocarpa CAA66034.1	trichocarpa BAA07241.1 BAA92500.1 CAA50597.1 CAB67121.1
Lophopyrum elongatum Lophopyrum elongatum Lycopersicon esculentum Lycopersicon hirsutum Lycopersicon hirsutum Arabis gemmifera Arabis lignifera Arabis lignifera Arabis fecunda Arabis lemmonii Arabis gunnisoniana Arabis glabra Arabis glabra Arabis lemmonii Arabis lemmonii Arabis lemmonii	Brassica napus Arabis lignifera Arabis lyallii Arabis gunnisoniana Arabis holboellii Arabis blepharophylla Arabis fecunda		Nicotiana tabacum Nicotiana tabacum Solanum tuberosum Lycopersicon esculentum Solanum tuberosum
AF131222 AF339747 AF220603 AF318492 1271 AF135153 AF135135 AF135137 AF135137 AF135143 AF135143 AF135144 AF135144 AF135144	M95835 AF135146 AF135148 AF135141 AF135130 AF135133 AF135149	AF135151 AF135147 AF135142 AF135142 AF135134 X64519 X51599 AJ301671 X16939 X16938	S44869 M15173 U02605 Z15140 U02606
AAK11674.1 AAK11674.1 AAK11568.1 SEQ ID NO. 1 BAA82826.1 AAE69793.1 AAE69775.1 AAE69773.1 AAE69778.1 AAE69783.1 AAE69784.1 AAE69784.1	AAA32986.1 AAF69786.1 AAF69788.1 AAF69781.1 AAF69773.1 AAF69773.1	AAF69791.1 AAF69787.1 AAF69782.1 Perplexa AAF69774.1 CAA45822.1 CAA35945.1 CAA35945.1 CAA35945.1	AAB23374.1 AAA34070.1 AAA18332.1 CAA78845.1 AAA17408.1

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Medicago sativa	Oryza sativa	Medicago sativa	Pisum sativum	Medicago sativa	Sesbanía rostrata	Pisum sativum	Lycopersicon esculentum	Lupinus luteus	Casuarina glauca	Hordeum vulgare	Lupinus luteus	Glycine max	Zea mays	Oryza sativa	Oryza sativa	Zea mays subsp. parviglumis	Parasponia andersonii	Trema tomentosa	Sesbania rostrata	Zea mays subsp. mays	Medicago truncatula	Medicago sativa	Medicago sativa			Vicia faba			Vicia faba	Trema virgata	Trema virgata	Medicago truncatula			Brassica napus	Lycopersicon esculentum	Hordeum vulgare	Prunus dulcis	Oryza sativa	Glycine max
M36100	U76030	X13375	AB015721	M91077	M23312	AB015720	AY026343	050083	x53950	U94968	X00401	047143	AF236080	U76028	U76031	AF291052	U27194	X00296	M23313	AY005818	X57733	X54089	AF172172	AF027215	AB009844	254158	AJ131349	AJ131352	254159	AJ131350	AJ131351	X57732		1275	AJ278966	AF016713	AE023472	AF213936	AF140606	AB052785
AAA32657.1	AAC49883.1	CAA31750.1	BAA31157.1	AAB48005.1	AAA03002.1	BAA31156.1	AAK07676.1	AAC04853.1	CAA37898.1	AAB70097.1	CAA68462.1	AAA97887.1	AAF44664.1	AAC49881.1	AAC49884.1	AAG01183.1	AAB86653.1	CAA68405.1	AAA03005.1	AAG01375.1	CAA40900.1	CAA38024.1	AAG29748.1	AAC28426.1	BAA24088.1	CAA90869.1	CAB63706.1	CAB63709.1	CAA90870.1	CAB63707.1	CAB63708.1	CAA40899.1			CAC07206.1	AAD01600.1	AAC32034.1	AAF20002.1	AAE07875.1	BAB19757.1
Populus balsamifera subsp.		Linum usitatissimum	Medicago sativa	Nicotiana tabacum	Medicago sativa	Populus kitakamiensis	Nicotiana tabacum	Gossypium hirsutum	Nicotiana tabacum	Glycine max	Armoracia rusticana	Glycine max	Spinacia oleracea	Medicago sativa	Populus kitakamiensis	Spinacia oleracea	Armoracia rusticana	Medicago sativa	Nicotiana sylvestris	Raphanus sativus	Stylosanthes humilis	Cucurbita pepo	Spinacia oleracea	Asparagus officinalis	Scutellaria baicalensis	Phaseolus vulgaris	Medicago sativa	Arachis hypogaea			Cichorium intybus x Cichorium		Casuarina glauca	Canavalia lineata	Sesbania rostrata	Sesbania rostrata	Sesbania rostrata			Pisum sativum
X97350		L07554	x9063	J02979	X90694	D30652	D11396	AF155124	AB027752	AF007211	D90115	AF014502	AF244924	X90692	D11102	AF244923	D90116	L36156	M74103	x91172	L37790	X17192	X10466	AB042103	AB024439	AF149278	L36157	M37636		1274	AJ007507		L28826	009671	X13815	X13505	X13814	U76029	X14311	AB015719
CAA66036.1	trichocarpa	AAB47602.1	CAA62226.1	AAA34108.1	CAA62227.1	BAA06334.1	BAA01992.1	AAD43561.1	BAA82306.1	AAC98519.1	BAA14143.1	AAB97734.1	AAF63027.1	CAA62225.1	BAA01877.1	AAF63026.1	BAA14144.1	AAB41810.1	AAA34050.1	CAA62597.1	AAB02554.1	CAA76680.1	CAA71492.1	BAA94962.1	BAA77389.1	AAD37428.1	AAB41811.1	AAB06183.1		SEQ ID NO. 1	CAA07547.1	endivia	AAA33018.1	AAA18503.1	CAA32044.1	CAA31859.1	CAA32043.1	AAC49882.1	CAA32492.1	BAA31155.1

Brassica napus

SEQ ID NO. 1284 AAD03693.1 AF084554

SEQ ID NO. 1282

Manihot esculenta Manihot esculenta Prunus avium Prunus serotina Rauvolfia serpentina Brassica napus	Costus speciosus Costus speciosus Cucurbita pepo Dalbergia cochinchinensis Pinus contorta Brassica nigra Avena sativa Hordeum vulgare Manihot esculenta Avena sativa Sorghum bicolor Zea mays Secale cereale Catharanthus roseus Trifolium repens Trifolium repens Zea mays Zea mays Zea mays Zea mays Brassica napus
X94986 S35175 U39228 AF221526 AF149311 X82577	
CAA64442.1 AAB22162.1 AAA91166.1 AAF34650.1 AAF03675.1 CAA57913.1 BAA78708.1	
Glycine max Glycine max Lotus japonicus Cucumis sativus Nepenthes alata Prunus dulcis	Vigna radiata Zea mays Ipomoea nil Manihot esculenta Hevea brasiliensis Manihot esculenta Manihot esculenta Manihot esculenta Micotiana tabacum Oryza sativa Nicotiana tabacum Atriplex hortensis Catharanthus roseus Catharanthus roseus Prunus armenlaca Hordeum vulgare Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Mesembryanthemum crystallinum Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Oryza sativa
AB052784 AB052788 AF000392 Z69370 AF080545 AF154930	1276 AB012932 AF256229 AB018526 1278 AJ223281 U40402 Z29091 AJ223506 1279 AF211531 AF211531 AF211530 AB023482 AJ29252 AF211531 AF211531 AF211533 AF21250 AF211537 AF21257 AF21527 AF245119
BAB19756.1 BAB19760.1 AAB69642.1 CAA93316.1 AAD16016.1	SEQ ID NO. BAA25753.1 BAA75232.1 SEQ ID NO. CAA11219.1 AAC49184.1 CAA11219.1 AAC49184.1 CAA11219.1 AAC43549.1 AAC43549.1 AAC43549.1 AAC43548.1 BAA78738.1 CAB96899.1 CAB96899.1 CAB96899.1 AAC43548.1 BAAC4138.1 AAC4587.1 AAC43548.1 BAB03248.1 AAC43545.1 AAC24587.1 AAC43545.1 AAC43545.1 AAC62619.1 BAB99376.1 SEQ ID NO. CAB57457.2

	Orves satius		Oryza sativa	Oryza sativa	Oryza sativa	Brassica napus	Brassica napus	Oryza sativa			Glycine max	Pisum sativum	Glycine max	Glycine max				Spinacia oleracea	Solanum tuberosum	Zea mays	Apium graveolens var. dulce		Chlorella kessleri	Lycopersicon esculentum		Nicotiana tabacum	Lycopersicon esculentum	Vicia faba	Oryza sativa	Ricinus communis	Medicago truncatula	Vitls vinifera	Vitis vinifera	Picea abíes	Ricinus communis	Oryza sativa	Oryza sativa	Lycopersicon esculentum	Oryza sativa
1	1289 APOO1633	AP001633	AP001633	AP001633	AP001633	U39289	039319	AP002899		1290	U43839	AJ305033	043838	043840		1291	AF215852	AF215851	AF215853	AF215854	AF215837	Y07520	X75440	AJ132224	X55349	X66856	AJ010942	293775	AB052885	L08196	U38651	AJ001061	X09590	283829	L08188	AB052884	AB052883	AJ132223	AP000615
	SEQ ID NO.	BAA94224.1	BAA94236.1	BAA94219.1	BAA94215.1	AAC49181.1	AAC49182.1	BAB21153.1		SEQ ID NO.	AAC49375.1	CAC24490.1	AAC49374.1	AAC49376.1			AAF74566.1	AAF74565.1	AAF74567.1	AAF74568.1	AAG43998.1	CAA68813.1	CAA53192.1	CAB52689.1	CAA39036.1	CAA47324.1	CAA09419.1	CAB07812.1	BAB19864.1	AAA79761.1	AAB06594.1	CAA04511.1	CAA70777.1	CAB06079.1	AAA79857.1	BAB19863.1	BAB19862.1	CAB52688.1	BAA85398.1
Plastid Solanum demissum	Capsicum annuum		Brassica napus	Oryza sativa	Lycopersicon esculentum	Spinacia oleracea	•		Oryza sativa	Sorghum bicolor		ത	Oryza sativa	Triticum aestivum	Oryza sativa	Oryza sativa	Nicotiana tabacum	Glycine max	Cucumis sativus		Hordeum vulgare	Oryza sativa	Oryza sativa	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Nicotiana tabacum	Oryza sativa	Oryza sativa	Oryza sativa	Glycine max	Chlamydomonas eugametos	Triticum aestivum		Craterostigma plantagineum	Vicia faba	Triticum aestivum	Mesembryanthemum crystallinum	Dunaliella tertiolecta
AJ131455	X71952	1286	062830	AF009413	AF233745	M87646		1288	AE004947	X12464	X12465	AF141378	AB011967	AB011670	AB011968	AP002482	D26602	AF128443	X10036	X95997	X82548	AF062479	055768	AJ007990	X65606	X65604	U73938	D88399	AC084763	AB002109	L38855	249233	U29095	073939	AJ005373	AF186020	M94726	226846	AF216527
CAA10372.1	CAA50750.1	SEO ID NO. 1		AAB63591.1	AAF60293.1	AAB59307.1		SEQ ID NO. 1	AAB62693.1	CAA73067.1	CAA73068.1	AAE22219.1	BAA83688.1	BAA34675.1	BAA83689.1	BAA96628.1	BAA05649.1	AAD23582.1	CAA71142.1	CAA65244.1	CAA57898.1	AAC99329.1	AAB05457.1	CAA07813.1	CAA46556.1	CAA46554.1	AAD00239.1	BAA13608.1	AAG60195.1	BAA19573.1	AAB68962.1	CAA89202.1	AAB58348.1	AAD00240.1	CAA06503.1	AAF27340.1	AAA96325.1	CAA81443.1	AAF21062.1

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Vicia faba Raphanus sativus Brassica oleracea		Raphanus sativus	Brassica oleracea	Allium cepa		Sorghum bicolor	Thlaspi arvense	Asparagus officinalis	Asparagus officinalis	Persea americana	Glycine max	Glycine max	Nepeta racemosa	Nicotiana tabacum	Catharanthus roseus	Capsicum annuum	Glycine max	Solanum melongena	Solanum melongena	Solanum melongena	Nepeta racemosa	Triticum aestivum	Mentha x piperita	Mentha x piperita	Mentha spicata	Mentha x piperita	Petunia x hybrida	Pisum sativum	Catharanthus roseus	Lycopersicon esculentum x		Brassica napus	Zea mays	Zea mays	Nicotiana tabacum	Brassica napus	Brassica napus
AJ289701 AB012044 AF299050	AF299051	AB030695	X95640	AF255796	1300	AF029858	L24438	AB037244	AB037245	M32885	AF022460	AF022459	X09423	AF166332	AJ238612	AF122821	AF022157	D1.4990	X71654	X70981	Y09424	AB036772	AF124817	AF124816	AF124815	233875	AF155332	AF218296	AJ295719	AF150881	n peruvianum	AF214009	X81830	Y11403	X96784	AF214008	AF214007
CAB93959.1 BAA32777.1 AAG23179.1	AAG23180.1	BAA92258.1	CAA64896.1	AAF65846.1	SEQ ID NO.	AAC39318.1	AAA19701.1	BAB40323.1	BAB40324.1	AAA32913.1	AAB94589.1	AAB94588.1	CAA70575.1	AAD47832.1	CAB56503.1	AAF27282.1	AAB94584.1	BAA03635.1	CAA50645.1	CAA50312.1	CAA70576.1	BAB40322.1	AAD44152.1	AAD44151.1	AAD44150.1	CAA83941.1	AAD56282.1	AAG44132.1	CAC27827.1	AAD37433.1	Lycopersicon	AAG14963.1	CAA57424.2	CAA72207.1	CAA65580.1	AAG14962.1	AAG14961.1
Lycopersicon esculentum Beta vulgaris		×	Petunia x hybrida	Petunia x hybrida		Oryza sativa	Triticum aestivum			Raphanus sativus	Brassica napus	Raphanus sativus	Brassica napus	Raphanus sativus	Samanea saman	Zea mays	Pyrus communis	Beta vulgaris	Zea mays	Zea mays	Pyrus communis	Zea mays	Zea mays	Allium cepa	Zea mays	Oryza sativa	Solanum tuberosum	Zea mays	Picea mariana	Atriplex canescens	Brassica cleracea	Spinacia oleracea	Picea abies	Solanum chacoense	Beta vulgaris	Triticum aestivum	Vicia faba
AJ132225 AF173655	1293	213998	213997	213996	1294	AF283006	073216		1296	AB030697	AF118383	AB030698	AF118382	AB012045	AF067185	AF326491	AB058678	U60147	AF326494	AF326493	AB058680	AF326492	AF130975	AF255795	AF326496	AF062393	X18312	AF326495	AF051202	U18403	AF314656	L77969	293764	AF290201	060148	AF139814	AF266760
CAB52690.1 AAD55054.1	SEQ ID NO.	CAA78388.1	CAA78387.1	CAA78386.1	SEO ID NO.	AAG13395.1	AAB18207.1		SEQ ID NO.	BAA92260.1	AAD39374.1	BAA92261.1	AAD39373.1	BAA32778.1	AAC17529.1	AAK26758.1	BAB40141.1	AAB67868.1	AAK26761.1	AAK26760.1	BAB40143.1	AAK26759.1	AAD28761.1	AAF65845.1	AAK26763.1	AAC16545.1	CAB46351.1	AAK26762.1	AAC32107.1	AAA86991.1	AAG30607.1	AAA99274.1	CAB07783.1	AAG02208.1	AAB67869.1	AAF61463.1	AAE.78062.1

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Nicotiana tabacum		Spinacia oleracea		Spinacia oleracea	Spinacia oleracea	Mesembryanthemum crystalli		Chloroplast Nicotiana	Nicotiana	Cucurbita sp.	Cucurbita sp.	Chlamydomonas reinhardtii	Chlamydomonas sp. W80	Mesembryanthemum crystallinum	Gossypium hirsutum	Zantedeschia aethiopica	Fragaria x ananassa	Fragaria x ananassa	Fragaria x ananassa	Fragaria x ananassa	Oryza sativa	Cucumis sativus	Raphanus sativus	Spinacia oleracea	Spinacía oleracea	Nicotiana tabacum	Vigna unguiculata	Lycopersicon esculentum	Capsicum annuum	Hordeum vulgare	Pimpinella brachycarpa								
211803	1303	D83669	76677a	AB002467	AB002467	AF069316	AF069315	AB022274	AB022273	D88420	D83656	AJ223325	AB009084	AF139190	037060	AE053474	AF158654	AF158652	AE039953	AF159633	AF159632	AF159628	AE159627	AF158653	AF159631.	AF159629	AF022213	AF159630	D45423	D88649	X78452	D85864	L20864	D85912	U61379	X16773	X81376	AJ006358	AF159380
CAA77847.1	SEQ ID NO.	BAA12039.1	BAA19611.1	BAA24610.1	BAA24609.1	AAC19394.1	AAC19393.1	BAA78553.1	BAA78552.1	BAA22196.1	BAA12029.1	CAA11265.1	BAA83595.1	AAD30294.1	AAB52954.1	AAC08576.1	AAD43338.1	AAD43336.1	AAB95222.1	AAD41408.1	AAD41407.1	AAD41403.1	AAD41402.1	AAD43337.1	AAD41406.1	AAD41404.1	AAB94574.1	AAD41405.1	BAA08264.1	BAA13671.1	CAA55209.1	BAA12890.1	AAA99518.1	BAA12918.1	AAB03844.1	CAB58361.1	CAA57140.1	CAA06996.1	AAF22246.1
	Sorahum bicolor	Thlaspi arvense	Persea americana	Asparagus officinalis	Asparagus officinalis	Nepeta racemosa	Nicotiana tabacum	Solanum melongena	Glycine max	Glycine max	Solanum melongena	Solanum melongena	Glycine max	Capsicum annuum	Nepeta racemosa	Mentha spicata	Triticum aestivum	Catharanthus roseus	Mentha x piperita	Mentha x piperita	Pisum sativum	Petunia x hybrida	Nicotiana tabacum	Mentha x piperita	Lycopersicon esculentum x		Catharanthus roseus	Nicotiana tabacum	Brassica napus	Brassica napus			Mesembryanthemum crystallinum	Spinacia oleracea	Brassica napus	Pisum sativum	Pisum sativum	Ricinus communis	Triticum aestivum
į	1301 AF029858	L24438	M32885	AB037244	AB037245	X09423	AF166332	X70981	AF022459	AF022460	D14990	X71654	AF022157	AF122821	X09424	AE124815	AB036772	AJ238612	233875	AF124816	AF218296	AF155332	X96784	AF124817	AF150881	n peruvianum	AJ295719	X95342	AE214008	AE214007		1302	AF069314	X14959	AF018174	X63537	U35830	270677	AF286593
	SEQ ID NO. 1	AAA19701.1	AAA32913.1	BAB40323.1	•	CAA70575.1	AAD47832.1	CAA50312.1	AAB94588.1	AAB94589.1	BAA03635.1	CAA50645.1	AAB94584.1	AAE27282.1	CAA70576.1	AAD44150.1	BAB40322.1	CAB56503.1	CAA83941.1	AAD44151.1	AAG44132.1	AAD56282.1	CAA65580.1	AAD44152.1	AAD37433.1	Lycopersicon	CAC27827.1	CAA64635.1	AAG14962.1	AAG14961.1		SEQ ID NO.	AAC19392.1	CAA33082.1	AAC04671.1	CAA45098.1	AAC49357.1	CAA94534.1	AAF88067.1

Oryza sativa Oryza sativa Oryza sativa Oryza sativa Malus x domestica Malus x domestica Raphanus sativus Brassica nigra Brassica napus Brassica napus	Brassica napus Ipomoea nil Pinus radiata Oryza sativa Oryza sativa Nicotiana tabacum Zea mays	, L L L	brassica oleracea Zea mays Brassica oleracea Populus nigra Zea mays Brassica oleracea Nicotiana tabacum Lophopyrum elongatum
AB001885 AB001886 AB001884 AF052584 AF052585 AF052690 AF269126 AF269126 AF016011	AF016009 AF300700 AF001136 AB001888 AB001882 1307 AF302082 AF023164 AF023165	AF142596 Y18259 Y18260 AY028699 AF078082 Z73295 Y14285 U20948 AY007545 AB041503 AB000970 X67733	X98520 U67422 Y14286 AB041504 U82481 Y12530 D31737 AF131222 AF339747
BAA33203.1 BAA33204.1 BAA33202.1 AAC99309.1 AAC35496.1 AAG27547.1 AAG27546.1 AAC27696.1	AAC27694.1 AAG24863.1 AAD22518.1 BAA33206.1 BAA33200.1 SEQ ID NO. AAG25966.1 AAC27894.1	AAF66615.1 CAB41878.1 CAB41879.1 AAK21965.1 AAD21872.1 CAA97692.1 CAA97661.1 AAG16628.1 BAA94509.1 CAA7962.1 CAA7962.1	CAAO/145.1 AABO9771.1 CAA74662.1 BAA94510.1 AAB93834.1 CAA73133.1 BAA06538.1 AAF43496.1
Nicotiana tabacum Zea mays Pisum sativum Pisum sativum Glycine max Oryza sativa Brassica napus Oryza sativa subsp. japonica Glycine max Brassica juncea	Nicotiana sylvestris Nicotiana sylvestris Matricaria chamomilla Lycopersicon esculentum Nicotiana tabacum Lycopersicon esculentum Nicotiana tabacum Catharanthus roseus	Catharanthus roseus Nicotiana tabacum Oryza sativa Solanum tuberosum Oryza sativa Nicotiana sylvestris Nicotiana tabacum Stylosanthes hamata Lycopersicon esculentum Brassica napus Oryza sativa Hordeum vulgare	Populus tremula x Populus Brassica juncea Oryza sativa Oryza sativa
U15933 Z34934 X62077 M93051 U56634 AB053297 Y11461 AB050724 AF127804	1304 AB016266 AB016264 AB035270 U89255 D38123 U89256 AF057373	AJ251250 U81157 AF190770 U77655 AB037183 AB016265 AB024575 U89257 AF084185 AF243384	1305 AF190881 AJ132363 AF056027 1306 AB001883
AAA86689.1 CAA43992.1 AAA33645.1 AAB01221.1 BAB20889.1 CAA72247.1 BAB17666.1 AAD20022.1	SEQ ID NO. 3 BAA97124.1 BAA97122.1 BAA87068.1 AAC50047.1 BAA07321.1 AAC49740.1 AAC62619.1 CAB96899.1	CAB96900.1 AAB38748.1 AAF05606.1 AAC29516.1 BAB03248.1 BAA97123.1 BAA97123.1 BAA97123.1 AAD00708.1 AAD045623.1 AAG59619.1	SEQ ID NO. 1 AAG17172.1 tremuloides CAC24691.1 AAC39514.1 SEQ ID NO. 1 BAA33201.1

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	Oryza sativa	Nicotiana tabacum	Apium graveolens var. du	Solanum tuberosum	Zea mays	Spinacia oleracea	Chlorella kessleri	Chlorella kessleri	Picea abies	Chlorella kessleri	Nicotiana tabacum	Vicia faba	Medicago truncatula	Ricinus communis	Lycopersicon esculentum	Lycopersicon esculentum		Oryza sativa	Vitis vinifera	Vitis vinifera	Oryza sativa	Lycopersicon esculentum	Oryza sativa	Lycopersicon esculentum			Solanum tuberosum	Apium graveolens	Apium graveolens	Apium graveolens	Euphorbia esula	Nicotiana tabacum	Plantago major	Daucus carota	Daucus carota	Ricinus communis	Asarina barclaiana	Daucus carota	Vicia faba	Beta vulgaris
1315	AP000615	AF215852	AF215837	AF215853	AF215854	AF215851	X75440	Y07520	283829	X55349	X66856	293775	U38651	L08196	AJ132224	AJ010942	AF173655	AB052884	Y09590	AJ001061	AB052885	AJ132225	AB052883	AJ132223		1316	X69165	AF167416	AF167415	AF063400	AF242307	X82276	X75764	AJ303199	AB036758	231561	AF191024	X16768	293774	U64967
SEQ ID NO.	BAA85398.1	AAE74566.1	AAG43998.1	AAF74567.1	AAF74568.1	AAF74565.1	CAA53192.1	CAA68813.1	CAB06079.1	CAA39036.1	CAA47324.1	CAB07812.1	AAB06594.1	AAA79761.1	CAB52689.1	CAA09419.1	AAD55054.1	BAB19863.1	CAA70777.1	CAA04511.1	BAB19864.1	CAB52690.1	BAB19862.1	CAB52688.1		SEQ ID NO.	CAA48915.1	AAD45391.1	AAD45390.1	AAC99332.1	AAF65765.1	CAA57727.1	CAA53390.1	CAC19689.1	BAA89458.1	CAA83436.1	AAF04294.1	CAA76369.1	CAB07811.1	AAD53000.1
Brassica rapa	Oryza sativa	Brassica rapa	Lycopersicon esculentum	Brassica rapa			Spinacia oleracea	Zea mays .	Zea mays	Lithospermum erythrorhizon			Cucurbita maxima	Hordeum vulgare	Taxus cuspidata	Sorghum bicolor	Catharanthus roseus	Catharanthus roseus	Lycopersicon esculentum	Cicer arietinum	Mentha spicata	Glycyrrhiza echinata	Glycyrrhiza echinata	Cicer arietinum	Triticum aestivum	Cicer arietinum	Cicer arietinum	Vigna radiata	Lotus japonicus	Helianthus tuberosus	Helianthus tuberosus	Lupinus albus	Mentha x piperita	Pisum sativum	Glycine max			Dianthus caryophyllus	Ipomoea nil	
AB054061	AB023482	D38563	059318	D88193		1308	D85610	U85494	U85495	AB026197		1311	AF212991	AE326277	AF318211	U74319	L19074	AJ238612	U54770	AJ238439	AF124815	AB022732	AB001379	AJ012581	AB036772	AJ239051	AJ249800	AE279252	AB025016	AJ000477	AJ000478	AF195813	Z33875	AF195812	AF195818		1313	AF026480	055867	
BAB21001.1	BAA78764.1	BAA07576.1	AAB47422.1	BAA21132.1		SEQ ID NO.	BAA20482.1	AAC50011.1	AAC50021.1	BAA77218.1		SEQ ID NO.	AAG41777.1	AAK11616.1	AAK00946.1	AAC49659.1	AAA17732.1	CAB56503.1	AAB17070.1	CAB41490.1	AAD44150.1	BAA74465.1	BAA22422.1	CAA10067.1	BAB40322.1	CAB43505.1	CAB56742.1	AAF89209.1	BAA93634.1	CAA04116.1	CAA04117.1	AAE34534.1	CAA83941.1	AAE34533.1	AAF45142.1		SEQ ID NO.	AAD01804.1	AAB07724.1	

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Physcomitrella natens		Chara		Orvza	Ridens			brassica juncea	Mougeotia scalaris	Pisum sativum	Chlamydomonas reinhardtii	Castanea sativ	Brassica		Vigna radiata	Vigna radiata	Trition postimin	Triticum aestivum		acotiviim postiviim		acstinim	Trittons soctions	Viana radiata	Disim sativim	Petunia x hybrida	Petinia x hybrida	Orvza sativa	Orvas setima		Malus x domestica	Lilium longiflorum	Helianthus annuus	Daucus carota	Hordeum vulgare		Elaeis	Prunus	Oryza s		
X90560	AB041711	AB044286	AB041712	AP000815	X89890	1110150	10.00 M	100000 100000	X13/84	013736	M20729	AF334833	AF150059	X1.3974	120507	120691	049105	049104	049103	048693	048689	048688	1148242	581594	013882	M80836	M80831	212827	X65016	X52398	X60738	Z12839	U79736	X59751	M27303	AP000969	AF295637	AF292108	AF042840	1324	
CAA62150.1	BAA94696.1	BAA96536.1	BAA94697.1	BAA87825.1	CAA61980.1	AAA19571 1	- CASTSAG	1.1.50.00000000000000000000000000000000	CAM/4III.I	AAA92677.1	AAA33083.1	AAK25753.1	AAF73157.1	CAA74307.1	AAA34238.1	AAA34237.1	AAC49587.1	AAC49586.1	AAC49585.1	AAC49584.1	AAC49580.1	AAC49579.1	AAC49578.1	AAB36130.1	AAA92681.1	AAA33706.1	AAA33705.1	CAA78287.1	CAA46150.1	CAA36644.1	CAA43143.1	CAA78301.1	AAB68399.1	CAA42423.1	AAA32938.1	BAA88540.1	AAG27432.1	AAG11418.1	AAC36059.1	SEQ ID NO.	
()	Pisum sativum	Beta vulgaris	Alonsoa meridionalis	Nicotiana tabacum	Plantago major	Lycopersicon esculentum	Daucus carota			•		Vitis vinifera	Lycopersicon esculentum	Solanum tuberosum	Hordeum vulgare	Ricinus communis	Hordeum vulgare	Oryza sativa subsp. indica	Oryza sativa	Zea mays	Betula pendula	Lycopersicon esculentum	Cicer arietinum				Vitis vinifera	Nicotiana sylvestris	Nicotiana tabacum	Solanum tuberosum	Triticum aestivum			Manihot esculenta	ы		Manihot esculenta		Nicotiana tabacum		
X67125	AF109922	X83850	AE191025	AET49981	X84379	X82275	X16767	X16766	A.T303198		AU224961	AF182445	AFT 76950	AF237780	AJ272308	AJ310643	AJ272309	AF280050	D87819	AB008464	AF168771	AF166498	AB025006		1319	097522	097521	AJ301671	M15173	X07130	X76041		1320	AJ223281	040402	229091	AJZZ3506		1322 AF329729	AF030033	
CAA47604.1	AAD41024.1	CAMS8/30.1	1.04290.1	AAD346IO.I	CAA59113.1	CAA57726.1	CAA76368.1	CAA76367.1	CAC19688.1	וייייייייייייייייייייייייייייייייייייי	1.0577444 *********************************	AAD33269.1	AAG092/0.1	AAG25923.1	CAB75881.1	CAC33492.1	CAB/5882.1	AAE90181.1	BAA24071.1	BAA83501.1	AAD45932.1	AAG12987.1	BAA76434.1			AAB65777.1	AAB65//6.1	CAC17793.1	AAA34070.1	CAA30142.1	CAA53626.1			CAMILZI9.1	AAC49184.1	CAABZ334.1	CAMA1428.1	ON OF CRE		AAD10245.1	

353	
Lycopersicon esculentum Petroselinum crispum Ipomoea nil Pisum sativum Prunus dulcis Medicago sativa Lycopersicon esculentum Zea mays Zea mays Triticum aestivum Zea mays Picea glauca Ipomoea nil Picea abies Funaria hygrometrica Lilium longiflorum Lilium longiflorum Lilium longiflorum Lilium longiflorum Lilium longiflorum Lilium sexilorum Funaria hygrometrica Lilium sexilorum Funaria hygrometrica Lilium aestivum Lycopersicon esculentum Fragaria x ananassa Pisum sativum Lycopersicon esculentum Fragaria x ananassa Pisum sativum Lycopersicon esculentum Medicago sativa Medicago sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa	Oryza sativa
U72396 X95716 M99430 M33901 AF159562 X98617 AF090115 X54076 X58279 S59777 L47717 M99429 L47717 M99429 L47717 M99429 L47717 M99429 L47717 M99429 M67818 AF089846 AF089846 AF089846 AF089846 AF089846 AF089846 AF089846 AF089846 AF089846 AF089846 AF123255 AF123255 AF123256 AF123256 AF123257 X56138 U63631 W80939 W80938 X60820 U21723	083669
AAC14577.1 CAA65020.1 AAA33670.1 AAD41409.1 CAA67206.1 AAC36312.1 CAA38012.1 CAA41218.1 AAB01561.1 AAB01561.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB01562.1 AAB0178.1 AAB030452.1 AAB3360.1 AAB3360.1 AAB3360.1 AAB33856.1 CAA41546.1 CAA41546.1 CAA433991.1 AAB33991.1 AAB33991.1	AAC78392.1
Ipomoea batatas Ipomoea batatas Ipomoea batatas Solanum melongena Ipomoea batatas Cicer arietinum Lycopersicon esculentum Phaseolus vulgaris Vigna mungo Vicia faba Vicia sativa Zea mays Phaseolus vulgaris Vicia sativa Glycine max Medicago sativa Lavatera thuringiaca Zea mays Nicotiana tabacum Phaseolus vulgaris Phaseolus vulgaris Phaseolus vulgaris Phaseolus vulgaris Lycopersicon esculentum Phaseolus vulgaris Lycopersicon esculentum Propersicon esculentum Propersicon esculentum Propersicon esculentum Brassica napus Solanum tuberosum Lycopersicon esculentum Pseudotsuga menziesii Zea mays Nicotiana tabacum Ipomoea batatas Zea mays Prunus armeniaca Hemerocallis hybrid cultivar	Helianthus annuus
AF138264 AF138265 AF138265 AF138265 AF138265 AJ2028 Z99953 AB038598 U59465 Z99953 Z30338 D45402 Z99955 Z30338 D45402 Z99955 Z99955 Z99172 Z99172 AF089849 AJ245924 Z48736 U41902 AF089848 U17135 AF019145 Z99173 AF089848 U17135 AF019147 U93166 U12637	229554
	CAA82653.1

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Lycopersicon esculentum	Pseudotsuga menziesii	Medicado sativa			Pisum sativum	Lycopersicon esculentum	Chenopodium rubrum	Glycine max	Zea mavs	Triticum aestivum	Picea qlauca	Triticum aestivum	Plastid Petunia x hybrida	Funaria hygrometrica	Lycopersicon esculentum	Chloroplast Lycopersicon	1	Nicotiana tabacum	Funaria hygrometrica	Oryza sativa	Triticum aestivum		Nicotiana sylvestris	Nicotiana tomentosiformis	Nicotiana tabacum	Agrostis stolonifera var		Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Nicotiana tabacum	Malus x domestica	Fragaria x ananassa					
AF123256	X92984 X13/31	X58710		1327	X86222	AB017134	X15333	U21722	AF035460	AF104107	L47741	AF104108	X54103	AF197942	059917	066300		D88584	AF197941	AB020973	X58280	AF097657	AF097658	AF:097656	X67328	AF097659	L28712	AB006043	AB006044	AB006041	AF019144		AF123255	X56138	AF123256	AF123257	AF166277	AF161179	U63631
AAD30453.1	CAR633/1.1	CAA41546.1		SEQ ID NO.	CAA60120.1	BAA32547.1	CAA33388.1	AAB03096.1	AAC12279.1	AAD03604.1	AAB01557.1	AAD03605.1	CAA38037.1	AAF19022.1	AAB49626.1	AAB07023.1	esculentum	BAA29064.1	AAF19021.1	BAA78385.1	CAA41219.1	AAC96315.1	AAC96316.1	AAC96314.1	CAA47745.1	AAC96317.1	AAA33477.1	BAA29066.1	BAA29067.1	BAA29065.1	AAC01570.1	palustris	AAD30452.1	CAA39603.1	AAD30453.1	AAD30454.1	AAD49336.1	AAF34133.1	AAC39360.1
Funaria hygrometrica		Brassica rapa	Castanea sativa	Nicotiana tabacum	Medicago sativa	Quercus suber	Fragaria x ananassa	Cuscuta japonica	Glycine max	Daucus carota	Papaver somniferum	Glycine max	Pisum sativum	Helianthus annuus	Helianthus annuus	Helianthus annuus	Glycine max	Daucus carota	Glycine max	Helianthus annuus		sat	Oryza sativa	Oryza sativa	Helianthus annuus	Oryza sativa	Lycopersicon esculentum	Oryza sativa	Pennisetum glaucum	Chenopodium rubrum	Lycopersicon esculentum	Zea mays	Pennisetum glaucum	Pennisetum glaucum	Pseudotsuga menziesii	Oryza sativa	Lycopersicon esculentum	sat	Pisum sativum
AF089843	1326	AE022217	AJ009880	AF166277	X58711	AJ000691	063631	AB017273	M11318	X53851	008601	M11395	M33899	046545	295153	X59701	X01104	X53852	M11317	AJ237596	M80939	M80938	X60820	083669	U46544	081385	AF123257	D12635	X94193	X338/0	AE123255	X65725	X94192	X94191	X92983	083670	X56138	U836/I	00855E
AAD09182.1	SEO ID NO.	_	CAA08908.1	AAD49336.1	•	•		BAA33062.1	AAB03893.1	CAA37847.1	AAA61632.1	AAA33975.1	AAA33672.1	AAB63311.1	CAB08441.1	CAA42222.1	CAA25578.1	CAA37848.1	AAA33974.1	CAB55634.2	AAA33910.1	AAA33909.1	CAA43210.1	AAC78392.1	AAB63310.1	AAB39856.1	AAD30454.1	BAA02160.1	CAA63903.I	CAA3/864.1	AAD30432.1	CAA46641.1	CAA63902.1	CAMBASUL.I	CAA635/0.1	AAC/8393.1	CAA39603.1	AAC /8394.1	AAA330/1.1

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90 Hordenm villagre				Lycopersicon esculentum		01 Ipomoea nil						199 Ipomoea nil	.04 Pisum sativum	54 Medicago truncatula	Lycopersicon esculentum	.41 Lycopersicon esculentum	Lycopersicon esculentum	13 Brassica oleracea	Picea mariana C	Oryza sativa				Glycine max		Spinacia oler	Lycope		Spirodela								753 Nicotiana tabacum	lycopersicon esculentum		77 Phaseolus vulgaris
DE022390	AF050180	AJ276389	065648	U76408	AB043956	AB016001	AB016000	190092	AB043954	AF100455	AB043955	AB015999	AF080104	AF308454	U76407	AF000141	076409	AF193813	090091	AF050181		1340	051192	051191	L13654	X16776	L13653	D14997	222920	D42065	D42064	M37637	AB024437	AJ401276	177080	AF244921	AB027753	X94943	AF007211	AF149277
ו סרטוממיי	AAC32817.1	CAB88029.1	AAB41849.1	AAD00252.1	BAB18584.1	BAA31700.1	BAA31699.1	1. C6900044	BAB18582.1	AAD13611.1	BAB18583.1	BAA31698.1	AAC33008.1	AAG27464.1	AAD00251.1	AAC49917.1	AAD09582.1	AAF23753.2	AAD00691.1	AAC32818.1		SEQ ID NO.	AAD11482.1	AAD11481.1	AAA65637.1	CAA76374.2	AAA65636.1	BAA03644.1	CAA80502.1	BAA07664.1	BAA07663.1	AAA32676.1	BAA77387.1	CAC21393.1	AAB67737.1	AAF63024.1	BAA82307.1	CAA64413.1	AAC98519.1	AAD37427.1
	rapaver somnierum Castanea sativa	Castaine ask	Pseudotsuga menziesii	Clucture max	GLYCLIG Max	Brassica raba		9	Distriction max	פוזכיוום וווסף		Petroselinum crispum	Avena fatua	Cucumia satistis	Nicotiana tabacum		Nicotiana tabacum			Nicotiana tabacum			Pimpinella brachycarpa	Petroselinum crispum	Petroselinum crispum	Nicotiana tabacum	Petroselinum crispum	Nicotiana tabacum		Nicotiana tabacum	Nicotiana tabacum	ଘ			Oryza sativa					Malus x domestica
	008601	M11305	XQ2QB3	0151W	M11310	AU1104 AE022217	ME 02221/	702/C0Y	295153	/ ТСТТЫ	1329	DE204925	248431	10137	DF096298	1158540	DB020590	PB02263	AF193802	AF096299	AB026890	248429	AF080595	AF121353	048831	AB041520	056834	AB020023	AF204926	AE193771	AF193770	AB035271		1332	AJ245900	AP000616	AP001129		1337	AF053769
•	AAA61632.1	CAMOSOG.1	1.07557477	1.070000444	AABUSBSS.1	1.07.02.04.4	AMB/2109.1	CAR46641.1	CAB08441.1	AAA339/4.1	T ON OIL		1.000000000	בי שנשרכי היי	AAC3/313.1	1.00101744	1.636257449	1.000//AMG	1 80852444	AAD16139.1	ר ובחאפתהם	1.10000447	par31956.1	AD55974.1	AAC49527.1	BAB16432.1	AAC49528.1	PA 277358 1	AAG35659.1	AAF61864.1	AAF61863.1	BAR 7069.1		SEO ID NO. 1	-	BAA85440.1	RAP90626.1		SEQ ID NO. 1	

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CABS469Z. I	AU242/42	Ipomoea batatas	AAC49150.1	U21940	Cladrastis kentukea
CAA62226.1	X90693	Medicago sativa	CAB96391.1	AJ271873	Phaseolus lunatus
CAA62227.1	X90694	Medicago sativa	CAB96392.1	AJ271874	
AAB41811.1	L36157	Medicago sativa	CAA76366.1	Y16754	Medicado sativa
AAD37429.2	AF149279	Phaseolus vulgaris	BAA82556.1	AB030083	Populus nigra
CAA71494.1	X10468	Spinacia oleracea	CAA93830.1	2.70000	Phaseolis lunatus
AAD11484.1	U51194	Glycine max	AAG16779.1	AF190633	Hey europeens
CAC21391.1	AJ401274	Zea mays	AAC49136.1	U21958	Cladrastis kentukea
AAA34108.1	J02979	Nicotiana tabacum	AAB39933.1	065009	Maackia amurensis
AAD37430.1	AF149280	Phaseolus vulgaris	AAB39934.1	U65010	Maackia amurensis
AAF63027.1		Spinacia oleracea	AAA33766.1	L26237	Phaseolus lunatus
CAA62225.1	X90692	Medicago sativa	AAA33143.1	M34270	Dolichos biflorus
AAD37375.1	-	Glycine max	CAA57697.1	X82216	Medicado truncatula
CAB67121.1	X1902	Lycopersicon esculentum	BAA36413.1	AB012632	Robinia pseudoacacia
AAB41810.1	L36156	Medicago sativa	AAA80182.1	U12783	Robinia pseudoacacia
CAA66037.1	X97351	Populus balsamifera subsp.	BAN04604.1	D17757	Robinia pseudoacacia
trichocarpa			CAA68497.1	Y00440	Pisum sativum
BAA92500.1	AP001383	Oryza sativa	AAC49271.1	U24249	Robinia pseudoacacia
BAA94962.1	AB042103	Asparagus officinalis	AAA80181.1	U12782	Robinia pseudoacacia
AAB97734.1	AF014502	Glycine max	BAA36416.1	AB012635	Robinia pseudoacacia
CAA50597.1	X71593	Lycopersicon esculentum	AAA33676.1	M18160	Pisum sativum
BAA01992.1	D11396	Nicotiana tabacum	CAA47011.1	X66368	Pisum sativum
CAA40796.1	X57564	Armoracia rusticana	AAA33141.1	J02721	Dolichos biflorus
AAD11483.1	051193	Glycine max	BAA36414.1	AB012633	Robinia pseudoacacia
AAF63026.1	AF244923	Spinacia oleracea	BAA02049.1	D12481	Bauhinia purpurea
AAF65464.2	AF247700	Oryza sativa	AAA80183.1	U12784	Robinia pseudoacacia
BAA11853.1	D83225	Populus nigra	AAC49272.1	024250	Robinia pseudoacacia
BAA06335.1	D30653	Populus kitakamiensis	AAA82737.1	U18296	Medicado sativa
	;		AAA74571.1	U22468	Arachis hypoqaea
	1342		AAB51441.1	U63011	Sophora japonica
AAG14455.1	AF283707	lipa	AAA74574.1	022471	Arachis hypogaea
AAG14454.1	AF283706	lipa	AAG00508.1	AF285121	Sophora flavescens
AAG14456.1	AF283708	Tulipa gesneriana	AAB39932.1	065008	
AAC08401.1	AF053564	Mesembryanthemum crystallinum			
	,			1347	
	1346		BAA85400.1	AP000615	Oryza sativa
AAB51442.1	063012	Sophora japonica	CAA74909.1	X14573	Hordeum vulgare
CAASSBZ9.1	269999	Phaseolus lunatus	CAB06083.1	283834	Hordeum vulgare
BAA36415.1	AB012634	Robinia pseudoacacia	CAA06487.1	AJ005341	Linum usitatissimum
CAA93828.1	866692	Phaseolus lunatus			
AAC49131.1	021959	Cladrastis kentukea	SEO ID NO. 1349	1349	

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Lycopersicon esculentum Capsicum annuum	Phaseolus vulgaris	Phaseolus vulgaris	Capsicum annuum		Lycopersicon esculentum	Fragaria x ananassa	Oryza sativa	Oryza sativa	Brassica napus	Hordeum vulgare	Lycopersicon esculentum	Glycine max	Fragaria x ananassa	Fragaria x ananassa	Gossypium hirsutum	Prunus persica	•		Cucumis melo	Brassica oleracea	Brassica napus	Brassica oleracea	Pelargonium x hortorum	Prunus persica	Lycopersicon esculentum	Betula pendula	Actinidia deliciosa	Malus x domestica	Malus x domestica	Malus x domestica	Petunia x hybrida	Malus x domestica	Cucumis melo	Pelargonium x hortorum	Pyrus pyrifolla	Malus x domestica	Pelargonium x hortorum	Cucumis sativus	Vigna radiata
Y11268 X87323	U34754	M57400	X97188	AF098292	U13054	AJ006349	AP002094	AP002094	AJ242807	AB040769	078526	000730	AJ223386	AJ223387	D88417	X96854		1355	X95552	X81629	L27664	X81628	019856	AF129074	254199	X10749	AB003514	X98627	AJ001646	AF030859	121976	X14005	X95553	U67861	D67038	AF015787	007953	AF033582	006047
CAA72133.1 CAA60737.1	AAC78504.1	AAA02563.1	CAA65826.1	AAD08699.1	AAA69908.1	CAB43938.1	BAA96207.1	BAA96209.1	CAB51903.1	BAA94257.1	AAC49704.1	AAA20082.1	CAA11301.1	CAA11302.1	BAA21111.1	CAA65598.1		SEQ ID NO.	CAA64798.1	CAA57285.1	AAA32981.1	CAA57284.1	AAB70883.1	AAF36484.1	CAA90904.1	CAA71738.1	BAA21541.1	CAA67216.1	CAA04895.1	AAC36461.1	AAC37381.1	CAA74328.1	CAA64799.1	AAB70884.1	BAA76387.1	AAB94031.1	AAC48977.1	AAC67233.1	AAC48922.1
Nicotiana sylvestris Nicotiana sylvestris	Nicotiana tabacum	Matricaria chamomilla	Nicotiana tabacum	Stylosanthes hamata	Nicotiana sylvestris	Nicotiana tabacum	Oryza sativa	Oryza sativa			Helianthus annuus			Medicago truncatula	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa			Lycopersicon esculentum	Populus alba	Pisum sativum	Pinus radiata	Lycopersicon esculentum	Capsicum annuum	Capsicum annuum	Atriplex lentiformis		Populus alba	Pinus radiata	Prunus persica	Prunus persica	Fragaria x ananassa	Fragaria x ananassa	Lycopersicon esculentum	Pisum sativum	Capsicum annuum
AB016266 AB016264	D38123	AB035270	AF057373	091857	AB016265	AB024575	AF190770	AB037183		1352	AF061870		1353	X15293	AP000616	AJ245900	AP000616	AP000616	AP001129		1354	U20590	AB049199	AB032830	076725	AE077339	X97190	AJ010950	AB055886	AB025796	AB049200	076756	X96853	X96856	AE074923	AJ006348	U13055	L41046	X97189
BAA97124.1 BAA97122.1	BAA07321.1	BAA87068.1	AAC62619.1	AAD00708.1	BAA97123.1	BAA76734.1	AAF05606.1	BAB03248.1			AAC24835.1			CAA75575.1	BAA85440.1	CAB53493.1	BAA85424.2	BAA85439.1	BAA90641.1		SEQ ID NO.	AAA80495.1	BAB39482.1	BAA85150.1	AAC12684.1	AAC62241.1	CAA65828.1	CAB59900.1	BAB32662.1	BAA77239.1	BAB39483.1	AAC12685.1	CAA65597.1	CAA65600.1	AAC95009.1	CAB43937.1	AAA69909.1	AAA96135.1	CAA65827.1

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Oryza sativa Chlorella kessleri Chlorella kessleri Chlorella kessleri Oryza sativa Lycopersicon esculentum Beta vulgaris Lycopersicon esculentum Apium graveolens var. dulc Zea mays Solanum tuberosum Nicotiana tabacum Spinacia oleracea Phaseolus vulgaris	Prunus dulcis Lycopersicon esculentum Hordeum vulgare Oryza sativa Brassica napus Lotus japonicus Glycine max Cucumis sativus Glycine max Nepenthes alata Prunus dulcis	Glycine max Glycine max Glycine max Lycopersicon esculentum Hordeum vulgare Cucumis sativus Prunus dulcis Oryza sativa Lotus japonicus Brassica napus
AP000399 X75440 Y07520 X55349 AB052883 AJ132223 AF173655 AJ132225 AF215837 AF215854 AF215853 AF215853 AF215853 AF215853	1368 AF213936 AF016713 AF023472 AF140606 AJ278966 AF000392 AB052788 Z69370 AB052785 AB052785 AB052785 AB1052785	1370 AB052788 AB052785 AB052784 AF016713 AF023472 Z69370 AF213936 AF140606 AF1000392
BAA83554.1 CAA53192.1 CAA68813.1 CAA39036.1 BAB19862.1 CAB52688.1 AAD55054.1 CAB52690.1 AAF74568.1 AAF74566.1 AAF74566.1 AAF74566.1 AAF74566.1	SEQ ID NO. AAF20002.1 AAD01600.1 AAC32034.1 AAF07875.1 CAC07206.1 AAB69642.1 BAB19760.1 CAA93316.1 BAB19757.1 BAB19756.1	SEQ ID NO. BAB19760.1 BAB19757.1 BAB19756.1 AAC32034.1 CAA93316.1 AAF20002.1 AAF07875.1 AAB69642.1 CAC07206.1
Dianthus caryophyllus Lycopersicon esculentum Lycopersicon esculentum Brassica juncea Phyllostachys edulis Rumex palustris Lycopersicon esculentum Helianthus annuus Carica papaya Nicotiana tabacum Nicotiana tabacum Nicotiana glutinosa Petunia x hybrida Carica papaya Ricotiana glutinosa Petunia x hybrida Carica papaya	Nicotiana glutinosa Rumex palustris Cucumis sativus Nicotiana glutinosa Oryza sativa Cucumis melo Nicotiana tabacum Pennisetum ciliare	Lycopersicon esculentum Lycopersicon esculentum Oryza sativa Nicotiana tabacum Medicago truncatula Ricinus communis Vitis vinifera Vitis vinifera Vitis vinifera Picea abies Oryza sativa
L35152 X58273 AB013101 AF252628 AB044747 Y10034 Y00478 L29405 U68215 X83229 Z46349 U54566 L21978 AF254125	U54565 AF041479 AB006807 U62764 X85747 D31727 1359 AB018441 AF325723 1361 L47672	1365 AJ132224 AJ010942 AB052885 X66856 U38651 L08196 AJ001061 Y09590 L08188 Z83829 AB052884
AAA33273.1 CAA41212.1 BAA34924.1 AAF65472.1 BAB32502.1 CAA68538.1 AAB71421.1 AAC98808.1 CAA58232.1 CAA58232.1 CAA86468.1 AAA33697.1 AAA33697.1 AAA33697.1	ененен зан за	SEQ ID NO. 1 CAB52689.1 CAA09419.1 BAB19864.1 CAA47324.1 AAB06594.1 AAA79761.1 CAA04511.1 CAA70777.1 AAA79857.1 CAB06079.1

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Ricinus communis Hemerocallis hybrid cultin Hordeum vulgare	Sandersonia aurantiaca Hordeum vulgare	Hordeum vulgare	Oryza sativa		Phalaenopsis sp. SM9108	Zinnia elegans	Pisum sativum	Ipomoea batatas	Oryza sativa	Oryza sativa	Vicia sativa			Sorghum bicolor	Asparagus officinalis	Persea americana	Asparagus officinalis	Thlaspi arvense	Glycine max	Glycine max	Nepeta racemosa	Nicotiana tabacum	Glycine max	Capsicum annuum	Solanum melongena	Catharanthus roseus	Solanum melongena	Solanum melongena	Mentha x piperita	Mentha x piperita	Mentha x piperita	Mentha spicata	Triticum aestivum	Catharanthus roseus	Pisum sativum	Petunia x hybrida	Brassica napus
AF050756 U12637 U94591	AF133839 Z97023	297021	X80876	AB004648	U34747	U19267	AJ004958	AF242372	AB004819	D76415	234895		1373	AF029858	AB037244	M32885	AB037245	L24438	AF022460	AF022459	X09423	AF166332	AF022157	AF122821	X70981	AJ238612	X71654	D14990	AF124816	AF124817	233875	AF124815	AB036772	AJ295719	AF218296	AF155332	AF214009
AAC62396.1 AAC35211.1 AAD10337.1	AAD28477.1 CAB09699.1	CAB09697.1	CAA56844.1	BAA83472.1	AAB37233.1	AAC49406.1	CAA06243.1	AAK27968.1	BAA83473.1	BAA11170.1	CAA84378.1			AAC39318.1	BAB40323.1	AAA32913.1	BAB40324.1	AAA19701.1	AAB94589.1	AAB94588.1	CAA70575.1	AAD47832.1	AAB94584.1	AAF27282.1	CAA50312.1	CAB56503.1	CAA50645.1	BAA03635.1	AAD44151.1	AAD44152.1	CAA83941.1	AAD44150.1	BAB40322.1	CAC27827.1	AAG44132.1	AAD56282.1	AAG14963.1
Nepenthes alata Prunus dulcis	Orvina estiva	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	icon	Lycopersicon pimpinellifolium		Hordeum vulgare	sicon	Lycopersicon pimpinellifolium			Lycopersicon esculentum			Lycopersicon esculentum	Pseudotsuga menziesii	Solanum tuberosum	Phaseolus vulgaris	Zea mays	Pisum sativum	Zea mays	Lycopersicon esculentum	Dianthus caryophyllus	Sandersonia aurantiaca	Zea mays	Vicia sativa	Nicotiana tabacum	Phaseolus vulgaris	Phaseolus vulgaris	Phaseolus vulgaris	Cicer arietinum	Pisum sativum	Matricaria chamomilla	Actinidia chinensis	Hemerocallis sp.	Zea mays
AF080545 AF154930	1371 at:117265	AF053995	AF053998	AF053993	AF053994	AE053996	AJ002236	AF166121	AJ002235	AJ002236	U15936	AF053997	AJ002237		1372	AF172856	041902	AJ245924	299954	AB020961	X66061	AE019147	AJ003137	017135	AF133838	AE019146	X75749	299173	299952	AJ224766	052970	X82011	U44947	AF182079	AF343446	X74406	AF019145
AAD16016.1 AAD42860.1	SEQ ID NO. 1	AAC78593.1	AAC78596.1	AAC78591.1	AAC78592.1	AAC78594.1	CAA05276.1	AAD50430.1	CAA05268.1	CAA05274.1	AAA65235.1	AAC78595.1	CAA05279.1		SEQ ID NO.	AAD48496.1	AAC49455.1	CAB53515.1	CAB17076.1	BAA88898.1	CAA46863.1	AAB88263.1	CAA05894.1	AAA79915.1	AAD28476.1	AAB88262.1	CAA53377.1	CAB16317.1	CAB17074.1	CAA12118.1	AAB68374.1	CAA57538.1	AAB41816.1	AAD54424.1	AAK06862.1	CAA52425.1	AAB70820.2

tabacum hybrida color ' apus hybrida utescens	Ferilla Irutescens Gentiana triflora Solanum tuberosum Perilla frutescens Manihot esculenta Petunia x hybrida Scutellaria baicalensis Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Phaseolus lunatus	Forsythia x intermedia 99 Manihot esculenta 09 Nicotiana tabacum Manihot esculenta Manihot esculenta Mitis vinifera Mitis vinifera	Vitis labrusca x Vitis vinifera Vitis vinifera Lycopersicon esculentum Vitis vinifera Vitis vinifera Vitis labrusca x Vitis vinifera	era olia n gans pacum
Nicotiana tabacum Petunia x hybrida Sorghum bicolor Brassica napus Verbena x hybrida Perilla frutescens Citrus unshiu	Gentiana triffora Solanum tuberosum Perilla frutescens Manihot esculenta Petunia x hybrida Scutellaria baicale Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Phaseolus lunatus	Forsythia x inter Manihot esculenta Nicotiana tabacum Manihot esculenta Manihot esculenta Vitis vinifera Vitis vinifera	Vitis labrusca Vitis vinifera Lycopersicon ev Vitis vinifera Vitis vinifera Vitis labrusca	Vitis vinifera Pyrus pyrifolia Prunus avium Cestrum elegans Nicotiana tabacum Malus x domestica
1384 AE190634 AB027455 AF199453 AF287143 AB013596 AB033758	ABO13337 D85186 U82367 AB002818 X77462 AB027454 AB031274 U32643 AF346432 U32644 AF101972	AF12/218 X77461 AF346431 X77459 X77463 AB047099 AB047097	AB047090 AB047093 X85138 AB047098 AB047096	1385 AF195654 AB006009 U32440 AB031870 AB000834 AF090143
SEQ ID NO. AAF61647.1 BAA89009.1 AAF17077.1 AAF98390.1 BAA36423.1 BAA93039.1 BAA36422.1	BAA12737.1 BAA12737.1 BAA19659.1 CAA54612.1 BAA83484.1 BAA83484.1 AAB36652.1 AAR28304.1 AAB36653.1	CAA54611.1 AAK28303.1 CAA54609.1 CAA54613.1 BAB41026.1 BAB41024.1	BAB41017.1 BAB41020.1 CAA59450.1 BAB41025.1 BAB41023.1 BAB41018.1	SEQ ID NO. AAF06347.1 BAA28872.1 AAB38064.1 BAA95017.1 BAA74546.2 AAC36740.1
Lycopersicon esculentum x Nicotiana tabacum Brassica napus Brassica napus Eustoma grandiflorum	Nepeta racemosa Solanum melongena Persea americana Solanum melongena Solanum melongena Mentha x piperita Glycine max Asparagus officinalis Nicotiana tabacum Asparagus officinalis Glycine max	Capsicum annuum Solanum melongena Thlaspi arvense Glycine max Triticum aestivum Nicotiana tabacum Zea mays	Sorghum bicolor Sorghum bicolor Petunia x hybrida Catharanthus roseus Zea mays Glycine max	Glycine max Glycine max Zea mays Zea mays Pisum sativum Nicotiana tabacum
m '	Y09424 X70981 M32885 D14990 X71654 Z33875 AF022157 AB037245 AF166332 AF02244	AF122821 X70982 L24438 D83968 AB036772 X96784 Y11368	AF029858 AF155332 AJ238612 X81827 X81828 D86351	AF022460 AF135485 X81829 Y11404 AF218296 X95342
	CAA70576.1 CAA50312.1 AAA32913.1 BAA03635.1 CAA63941.1 AAB94584.1 BAB40324.1 AAD47832.1 BAB40323.1	AAF27282.1 CAA50313.1 AAA19701.1 BAA12159.1 BAB40322.1 CAA65580.1 CAA72196.1 CAA57425.1	AAC39318.1 AAD56282.1 CAB56503.1 CAA57421.1 CAA57422.1 BAA13076.1	AAB94589.1 AAD38930.1 CAA57423.1 CAA72208.1 AAG44132.1 CAA64635.1

CAC10270.1	AJ243427	Malus x domestica	CAA12118.1	AJ224766	Phaseolus vulgaris
AAB95118.1	071244	Brassica rapa	CAB17074.1	299952	Phaseolus vulgaris
CAC09477.1	AL442113	Oryza sativa	AAD48496.1	AE172856	Lycopersicon esculentum
CAB62167.1	AJ242828	Castanea sativa	AAD53012.1	AF089849	Brassica napus
AAF06346.1	AF195653	Vitis vinifera	CAA05894.1	AJ003137	Lycopersicon esculentum
AAB02259.1	US7787	Avena sativa	BAA08245.1	D45403	Zea mays
AAD55090.1	AF178653	Vitis riparia	BAA88898.1	AB020961	Zea mays
CAA10492.1	AJ131731	Pseudotsuga menziesii	CAB16317.1	299173	Nicotiana tabacum
CAA09228.1	AJ010501	Cicer arietinum	AAB88263.1	AF019147	Zea mays
BAA95165.1	AB029918	Nicotiana tabacum	CAA92583.1	268291	Pisum sativum
AAF82264.1	AF227324	Vitis vinifera	CAA68192.1	X99936	Zea mays
AAB53368.1	U77657	Oryza sativa	AAC35211.1	U12637	Hemerocallis hybrid cultiv
AAB61590.1	AF003007	Vitis vinifera	AAB97142.1	U93166	Prunus armeniaca
AAB53367.1	077656	Oryza sativa			
			SEQ ID NO. 1	1387	
SEQ ID NO.	1386		AAA33967.1	M76981	Glycine max
AAF61440.1	AF138264	Ipomoea batatas	BAA23563.1	050094	Phaseolus vulgaris
AAF61442.1	AF138266	Ipomoea batatas	BAA19152.1	AB000585	Phaseolus vulgaris
AAF61441.1	AF138265	Ipomoea batatas	AAA34020.1	M20037	Glycine max
AAK27969.1	AF242373	Ipomoea batatas	AAA34022.1	M76980	
CAB17075.1	299953	Phaseolus vulgaris	AAA34021.1	M20038	Glycine max
AAB67878.1	059465	Vicia faba			
CAA08906.1	AJ009878	Cicer arietinum	SEQ ID NO. 1	1390	
CAA82995.1	230338	Vicia sativa	BAA87043.1	AB035183	Ipomoea batatas
BAA92495.1	AB038598	Vigna mungo	CAB06427.1	284383	Dianthus caryophyllus
AAD29084.1	AF082181	Solanum melongena	CAB06429.1	284385	Dianthus caryophyllus
CAA78403.1	214028	Lycopersicon esculentum	CAB06430.1	284386	Dianthus caryophyllus
BAA08244.1	D45402	Zea mays	CAB11466.1	298758	Dianthus caryophyllus
CAA83673.1	Z32795	Glycine max	CAB06538.1	284571	Dianthus caryophyllus
CAB17077.1	299955	Phaseolus vulgaris	CAB06428.1	284384	Dianthus caryophyllus
CAB16316.1	299172	Vicia sativa			
CAB53397.1	AJ245868	Medicago sativa	SEQ ID NO. 1	1391	
AAB62937.1	AF007215	Lavatera thuringiaca	AAK01360.1	AF314811	Brassica napus
BAA96501.1	AB032168	Nicotiana tabacum	CAB40834.1	AJ005686	Vitis vinifera
CAA57675.1	X82185	Zea mays	AAC14481.1	092286	Actinidia deliciosa
AAC49455.1	U41902	Pseudotsuga menziesii	AAB67875.1	060267	Lycopersicon esculentum
CAB17076.1	299954	Phaseolus vulgaris	CAA67069.1	X98421	Medicago sativa
AAD53011.1	AF089848	Brassica napus	AAK01361.1	AF314812	Brassica napus
CAA88629.1	248736	Lycopersicon esculentum	BAA19916.1	D49714	Oryza sativa
AAK27968.1	AF242372	Ipomoea batatas	AAC18862.1	AF067967	Mesembryanthemum crystallinum
AAB68374.1	052970	Phaseolus vulgaris	CAA67070.1	X98422	Medicago sativa

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	Glycine max Sesamum indicun Oryza sativa	•		Fractor v open	ממשנים ע שווממממ	rragaria x ananassa	Mesembryanthemum crystalli	Petroselinum crispum	Apium graveolens	Apium graveolens	Medicado sativa	Stylosanthos humilin	Styloganthes humilie								Dinns radiota		Branco Cacca	Brassica napus	Nicotions tobact	Nicotiana capacum	nicotialia capacilii	brassica oleracea	rucalyptus globulus	Aralla cordata	Eucalyptus gunnii	Brassica napus	Eucalyptus saligna	Populus tremuloides			Donilling doll to the	Punch delicators	brassica rapa Lolium nerenne	rorram berenne
1404	AF004809 AF109921 X89891		1405	063534	DE320110	01102021	0//6/0	X67817	U24561	AF067082	AF083333	L36456	L36823	AF146691	237991	AJ001926	A.T001925	A.T001924	X72675	1162394	AF060491	237992	AF229407	AF229409	X62343	X62344	AE220410	AE 22 34 10	100001G	DISSAT VCECS1	Abbasi	AF229406	AF294793	AF217957	AJ295837		2.195.6R	AF-229412	AF010290))))
SEQ ID NO.	AAB71227.1 AAF13743.1 CAA61981.1		SEQ ID NO.	AAD10327.1	1 PO285NAA	AMB20502.1	T. COCOCA 4 4 4 5	CAM48028.1	AAC15467.1	AAC61854.1	AAC35846.1	AAA74883.1	AAA74882.1	AAE72100.1	CAA86072.1	CAA05097.1	CAA05096.1	CAA05095.1	CAA51226.1	AAR38774 1	AAC31166.1	CAA86073.1	AAK00679.1	AAK00681.1	CAA44216.1	CAA44217 1	T CBSOUNT	AAC07987 1	1.700.00mm	T. CEOCORUC	T.COCOSTER	AAK006/8.1	AAG15553.1	AAE43140.1	CAC07423.1	trichocarpa	CAA79622.1	AAK00684.1	AAB70908.1	
Cichorium intybus Triticum aestivum	Solanum tuberosum			Nicotiana tabacum	Oryza sativa	Brassica napus	Name of the state	Tracatra mapus	Lycopersicon esculentum	Lycopersicon esculentum	Tortula ruralis	Glycine max	Oryza sativa	Oryza sativa		Kalanchoe fedtschenkoi	Oryza sativa	Glycine max	Dunaliella tertiolecta	Oryza sativa	Nicotiana tabacum	Marchantia polymorpha	Marchantia polymorpha	Chlamydomonas eugametos	Zea mays	Marchantia polymorpha	Marchantia polymorpha	m	Nicotiana tabacum		7	County to not	cucuror a pepo	Mesembryanthemum crystallinum	Vicia faba	Solanum tuberosum	Daucus carota	Zea mays	Zea mays	
AF101424 AF022914	1392 U52079	007	0057	D26601	AF172282	AJ010091	A,7010093	0070004	AF203480	AF203481	082087	AF203479	AP000615	AF048691	AF162662	AF162661	X81393	069173	AF216527	AP002482	AF325168	AB017516	AB017515	249233	L15390	AB017515	AB017517	008140	073938	U73939	AF090835		10000	AFIDBUSI	AFIBBUZU	X95997	XS6599	AJ007366	U28376	
AAC84137.1 AAB80946.1	SEQ ID NO. AAD10836.1	יי טאַט		BAA05648.1	AAE34436.1	CAA08995.1	CAA08997.1	1 60001366	1.20%CITAKK	AAE 19403.1	AAB/0/06.1	AAF19401.1	BAA85396.1	AACU52/0.1	AAF06970.1	AAF06969.1	CAA57156.1	AAB80692.1	AAF21062.1	BAA96628.1	AAG53979.1	BAA81750.1	BAA81748.1	CAA89202.1	AAA33443.1	BAA81749.1	BAA81751.1	AAC49405.1	AAD00239.1	AAD00240.1	AAD17800.1	AAB49984 1	ר כוואספעה	1.2116.144	T-050/2380	CAA65244.1	CAA39936.1	CAA07481.1	AAA69507.1	

CAM51211. XF15400 Dacalptus gunnii CAA615891 X69409 Locus japonicus CAM70001. XF22400 Becasica napus AAR71851. X69402 Locus japonicus CAM7007. XI2733 Zeas mays AAR000501. X700000. X7000000. X700000. X700000. </th <th></th> <th>J(</th> <th>,,</th> <th></th>																				J(,,																				
X75480 Bucalyptus gunnii CCA67889.1 AF229408 Brassica napus CCA67889.1 X13733 Zea mays AAF7475.1 AF229411 Brassica rapa AAD05034.1 AF08332 Medicago sativa AAD05033.1 AF08333 Medicago sativa AAD05033.1 AF08590 Zannia elegans CAA95626.1 AF20752 Brassica napus CAA36429.1 AF20753 Brassica napus CAA36430.1 AF20754 Brassica napus CAA36430.1 AF20755 Brassica napus CAA36430.1 AF20755 Brassica napus CAA36430.1 AF20755 Brassica napus AAC40611.1 AB04226 Zea mays AB042261.1 AB03101 Zea mays AB031	Lotus japonicus	Asparagus officinalis			Triphysaria versicolor		Vicia faba	Asparagus officinalis	Lotus japonicus	Pisum sativum	Astragalus sinicus	Pisum sativum	Astragalus sinicus	Phaseolus vulgaris	Glycine max	Oryza sativa	Oryza sativa	Helianthus annuus		Zea mays	Helianthus annuus	Pisum sativum	Pisum sativum	Pyrus pyrifolia	Glycine max			Zea mays	Zea mays							Brassica napus	Brassica napus	Catharanthus roseus	Phaseolus vulgaris	Spinacia oleracea	Nicotiana tabacum
X75480 Eucalyptus gunnii CTA661889.1 AF223408 Brassica napus CAA61889.1 X13733 Zea mays ART74755.1 AF22411 Brassica rapa AAD05034.1 AF005702 Zea mays AAD05034.1 AF005702 Zea mays AAD05034.1 AF231135 Saccharum officinarum CAA61590.1 D16624 Eucalyptus botryoides AAD05031.1 AF20755 Brassica napus BAA9622.1 AF20755 Brassica rapa AAC0430.1 AF20755 Brassica rapa BAA96221.1 AF20755 Brassica rapa AAC05021.1 AF20755 Brassica rapa AAC18202.1 AB04226 Zea mays AAC18207.2 AB04226 Zea mays AAC18207.2 <td>X89409</td> <td>73327</td> <td>AF263432</td> <td>AF014057</td> <td>AF014056</td> <td>AF014055</td> <td>272354</td> <td>X67958</td> <td>X89410</td> <td>X52179</td> <td>AB035248</td> <td>X52180</td> <td>AB035247</td> <td>AJ133522</td> <td>077679</td> <td>D83378</td> <td>055873</td> <td>AF190729</td> <td>AF005724</td> <td>X82849</td> <td>AF037363</td> <td>X13321</td> <td>X13322</td> <td>AB021793</td> <td>L23833</td> <td></td> <td>1415</td> <td>AF271636</td> <td>AF003551</td> <td>AF191667</td> <td>AF191666</td> <td>AF042184</td> <td>AF293461</td> <td></td> <td>1417</td> <td>U27108</td> <td>U27107</td> <td>AF084971</td> <td>041817</td> <td>AJ223624</td> <td>248602</td>	X89409	73327	AF263432	AF014057	AF014056	AF014055	272354	X67958	X89410	X52179	AB035248	X52180	AB035247	AJ133522	077679	D83378	055873	AF190729	AF005724	X82849	AF037363	X13321	X13322	AB021793	L23833		1415	AF271636	AF003551	AF191667	AF191666	AF042184	AF293461		1417	U27108	U27107	AF084971	041817	AJ223624	248602
X75480 AF229408 Brassica X13733 AF229411 Eda mays AF229411 Brassica Z19573 AGICAGO AJ005702 AJ005702 AGO mays AJ23135 Brassica AF109157 Brassica AF207554 Brassica AF207559 Brassica AF207569 Brassica AF207569 Brassica AF207569 Brassica AF0014882 Cea mays AB042269 Cea mays AB060130 Cea mays AB060130 Cea mays AB060130 Cea mays AB060130 Brassica AF061740 Brassica AF0740 Brassica AF0740 Brassica AF0740 Bra	CAA61589.1	CAAb/889.I	AAE74755.1	AAD05035.1	AAD05034.1	AAD05033.1	CAA96526.1	CAA48141.1	CAA61590.1	CAA36429.1	BAA96252.1	CAA36430.1	BAA96251.1	CAB57292.1	AAC49614.1	BAA18951.1	AAB03991.1	AAF02776.1	AAB71532.1	CAA58052.1	AAB91481.1	CAA73762.1	CAA73763.1	BAA96452.1	AAA73943.1			AAG21985.1	AAC18622.2	AAG28387.1	AAG28386.1	AAB97685.1	AAG14462.1			AAB03379.1	AAB03378.1	AAD42937.1	AAC49474.1	CAA11499.1	CAA88492.1
41 4	Eucalyptus gunnii	Brassica napus	Zea mays	Brassica rapa			Zea mays	Saccharum officinarum	Zinnia elegans	Eucalyptus botryoides	Eucalyptus globulus	Brassica napus	Brassica oleracea	Brassica rapa	ca	ica	LCa					Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							nus	Brassica oleracea	Elaeagnus umbellata	Phaseolus vulgaris	Helianthus annuus	Glycine max	Medicago sativa	Glycine max	Medicago sativa
	X75480	AFZ29408	X13733	AF229411	Z19573	AF083332	AJ005702	AJ231135	D86590	D16624	AF109157	AF207552	AF207554	AF207555	AF207553	AF207559	AF207558		1412	AF339732	AB042267	AB042268	AB042261	AB042260	AB024291	AB031012	AB004882	AB031011	AB042269	AB060130		1414	AB050900	X84448	AF061740	AJ009952	AF190728	077678	089923	U55874	L40327
	CAA53211.1	AAKOU680.1	CAA74070.1	AAK00683.1	CAA79625.1	AAC35845.1	CAA06687.1	CAA13177.1	BAA19487.1	BAA04046.1	AAD18000.1	AAF23409.1	AAF23411.1	AAF23412.1	AAF23410.1	AAF23416.1	AAF23415.1			AAK14395.1	BAB20580.1	BAB20581.1	BAB20579.1	BAB17300.1	BAA82873.1	BAA85113.1	BAA75253.1	BAA85112.1	BAB20582.1	BAB41137.1			BAB17726.1	CAA59138.1	AAC16325.1	CAA08913.1	AAF02775.1	AAC49613.1	AAB81011.1	AAC09952.1	AAB48058.1

racea bacum ia exa inalis bacum bacum brida brida la patens adensis m m m racea esculentum esculentum	rida riticum ivum aethiopi ris	Brassica rapa subsp. pekinensis Panax ginseng Cicer arietinum Cicer arietinum Zea mays Pinus sylvestris Mesembryanthemum crystallinum Lycopersicon esculentum Paulownia kawakamii	Oryza sativa Carica papaya Spinacia oleracea Oryza sativa
M87514 X71441 X75670 AJ001369 122209 U79011 X80008 X68140 AF233640 AF233640 AF233640 AJ222981 1433 D49486 X56435 J04087 D10244 X14041 M37151	ABUZO 7.4 D85239 M20792 U69536 U69632 AF054151 X58579 AB004870	AF071112 AF034630 AJ012739 AJ012691 X17565 X58578 U80069 X87372	L3632U Y13610 X53872 L19435
AAA32990.1 CAA50575.1 CAA53366.1 CAA04702.1 AAA62621.1 AAC49701.1 CAA56318.1 CAA56318.1 CAA10774.1 AAD10774.1 AAD10774.1 AAD10774.1 AAD10774.1 AAD10774.1 AAD10774.1 AAD10774.1 CAA32819.1 CAA32200.1 CAA32200.1 AAA34195.1 CAA32200.1	BAA12745.1 BAA12745.1 AAB67990.1 AAB67991.1 AAC08582.1 CAA41455.1 BAA24919.1 AAA33659.1	AAC25568.1 AAB87572.1 CAA10132.1 CAA10132.1 CAB57992.1 CAA41454.1 AAB40394.1 CAA60826.1	AAA3391/.1 CAA73929.1 CAA37866.1 AAC14464.1
Petroselinum crispum Sinapis alba Nicotiana tabacum Raphanus sativus Brassica napus Glycine max Zea mays Oryza sativa Oryza sativa Brassica napus Catharanthus roseus Phaseolus vulgaris Petroselinum crispum Petroselinum crispum Triticum aestivum Triticum aestivum Triticum aestivum Triticum aestivum Catharanthus roseus	Brassica napus Lycopersicon esculentum Zea mays Triticum aestivum Triticum aestivum Vicia faba Lycopersicon esculentum	Triticum aestivum Triticum aestivum Hordeum vulgare Triticum aestivum Oryza sativa Oryza sativa	olea europaea
U46217 Y16953 Z48603 X92102 X83920 U10270 U42208 U04295 X83922 AF084972 U57389 A7292743 Y10810 D12920 X56781 M28704	X83921 X74943 Y15165 D64051 X74942 U07933 X97903 X74941	D12919 M63999 X98747 U10466 AB021736 D78609 1425 Y12805 A.7010943	1428 AJ001370
AAC49398.1 CAA76555.1 CAA63073.1 CAA58772.1 AAB40291.1 AAB40291.1 AAC49556.1 CAA58774.1 AAB36514.1 CAC00656.1 CAA71770.1 BAA02304.1 CAA71770.1 BAA02304.1 CAA71770.1	CAA58773.1 CAA52897.1 CAB62402.1 BAA10928.1 CAA52896.1 AAA17488.1 CAA66477.1 CAA52895.1		

Vitis vinifera Zea mays Zea mays Zea mays Nicotiana plumbaginifolia Asparagus officinalis Nicotiana plumbaginifolia Lycopersicon esculentum Asparagus officinalis Chlorella sorokiniana Chlorella sorokiniana Triticum aestivum Triticum aestivum Triticum aestivum Triticum aestivum Sesamum indicum Nicotiana paniculata Nicotiana paniculata Nicotiana paniculata Sesamum indicum Nicotiana paniculata Nicotiana argue Zea mays Zea mays Zea mays Avicennia marina Spirodela polyrrhiza Avena sativa Hordeum vulgare Oryza sativa Avena sativa Actinidia arguta Lycopersicon esculentum Solanum tuberosum	Lupinus albus Catharanthus roseus Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Solanum tuberosum
X86924 D49475 U93561 U93560 AJ277950 AJ277950 AJ011096 Y08293 U48695 AJ011006 X58831 X58831 X58831 X58831 X58831 X58831 X58831 AF120148 AF120147 AF120146 U38920 AF22013 AB009881 U32511 AF323175 AF056325 AB012107 AY005128 AF293460 AF357837	AYUZ 6321 AB004809 AF156696 AB042951 AB042956 X98891
	AAK01938.1 BAA20522.1 AAF74025.1 BAB21562.1 BAB21563.1 CAA67396.1
sat los tables sat lo	Fagus sylvatica Nicotiana plumbaginifolia Nicotiana plumbaginifolia Vitis vinifera
D00999 AF328859 AF016893 AF009735 M54936 X95728 L19434 D01000 AJ250667 X55974 AF170297 AF016892 U34727 AF016892 U34727 AF092431 AJ277087 AJ277087 AF092431 AJ277087 AF092432 AF092432 AF092432 AF092432 AF092432 AF0928987 Y11607 AF0928987 Y11607 AF0928987 Y11607 AF0928987 AJ277087 AF0928987 W11607 AF0928987 W11607 AF092835 AF09355 AF09355 AF075582 AF075582 AF075582 AF075582 AF075582	AJZ98988 1435 Y08292 AJZ77949 AJ303070
	SEQ ID NO. 1 CAA69600.1 CAB94836.1 CAC18730.1

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Triticum aestivum Lens culinaris	Triticum aestivum Volvox carteri	Lycopersicon esculentum	Lens culinaris	Triticum aestivum	Lycopersicon esculentum	Nicotiana tabacum	Pisum sativum	Chlamydomonas reinhardtii		Euphorbia esula	Cicer arietinum	Lilium longiflorum	Nicotiana tabacum	Apium graveolens	Fritillaria acrestis			Zea mavs	Persea americana	Vigna unguiculata	Phaseolus vulgaris			Orvza sativa			Petunia x hybrida	×	×	×	×	×	×	Petunia x hybrida	×			Nicotiana tabacum
X59872 AF352253	AF107023 L07946	AJ224933	AF352252	AF107027	U03391	L29456	L34578	U16726	X05636	AF222804	AJ006767	AB012694	AB029614	X12599	AF031547		1444	U95953	AF224672	AB030293	AF190462		1445	AP000364		1446	AB006600	AB006601	AB006599	AB000451	AB006603	Al3006604	AB006602	AB000452	D26084	AF119050	D26083	AE053077
CAA42529.2 AAK29456.1	AAD41006.1 AAA74723.1	CAA12232.1	AAK29455.1	AAD41009.1	AAA50578.1	AAC41651.1	AAA50303.1	AAA98452.1	CAA29123.1	AAF27930.1	CAA07233.1	BAA87331.1	BAA88671.1	CAA73171.1	AAB86857.1		SEQ ID NO.	AAB62181.1	AAK00632.1	BAB11932.1	AAF26356.1		SEQ ID NO.			SEQ ID NO.	BAA21922.1	BAA21923.1	BAA21921.1	BAA19110.1	BAA21925.1	BAA21926.1	BAA21924.1	BAA19111.1	BAA05077.1	AAD26942.1	BAA05076.1	AAC06243.1
Sesbania rostrata Sesbania rostrata Medican truncatula			Solanum tuberosum	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum	Oryza sativa	Triticum aestivum	Oryza sativa	Oryza rufipogon	Oryza sativa	Oryza sativa	Apium graveolens var. dulce	Chlorella kessleri	Chlorella kessleri	Chlorella kessleri			Daucus carota	Hordeum vulgare			Lycopersicon chilense	Lycopersicon esculentum	Lycopersicon pennellii	Triticum aestivum	Lathyrus sativus	Lathyrus sativus	Volvox carteri	Triticum aestivum	Pisum sativum	Pisum sativum	Zea mays	Pisum sativum	Triticum aestivum	Triticum aestivum		Triticum aestivum
AJ286743 AJ286744	AF000355	AF156695	06886X	AF022873	AF022874	Y14214	AF239619	AF110180	AE271893	AF337531	AF335588	AF229169	AF215837	X07520	X55349	X75440		1440	U87257	AJ000693		1441	AF253416	211842	001890	AF107024	AF352249	AF352250	L07947	D87064	AF352247	AF352248	X57077	AF352246	AF107026	D87065	AF352251	AF107022
CAC28218.1 CAC28219.1	AAB81347.1	AAD38859.1	CAA67395.1	AAB82146.1	AAB82147.1	CAA74607.1	AAF42956.2	AAD26146.1	AAF76345.1	AAK06857.1	AAK25766.1	AAF40188.1	AAG43998.1	CAA68813.1	CAA39036.1	CAA53192.1			AAC49815.1	CAA04245.1		SEQ ID NO. 1	AAF64525.1	CAA77867.1	AAB03076.1	AAD41007.1	AAK29452.1	AAK29453.1	AAA34246.1	BAA25203.1	AAK29450.1	AAK29451.1	CAA40362.1	AAK29449.1	AAD41008.1	BAA25204.1	AAK29454.1	AAD41005.1

	111 02 77 42	Lycopersicon esculentum Gossypium hirsutum Gossypium hirsutum Oryza sativa Spinacia oleracea Stylosanthes humilis Arachis hypogaea Triticum aestivum Asparagus officinalis Spinacia oleracea Hordeum vulgare Spinacia oleracea Fice abies Cucumis sativus Triticum aestivum Oryza sativa Triticum aestivum Cucurbita pepo
CAA66037.1 trichocarpa BAA07241.1 AAB47602.1 BAA06334.1	AAC98519.1 AAB97734.1 BAA06335.1 AAB37427.1 CAA62226.1 CAA62227.1 AAB41811.1 CAA62225.1 AAB41810.1 AAB37430.1 CAB94692.1 AAA34108.1 CAA40796.1 BAA01992.1 CAB67121.1	
Petunia x hybrida Petunia x hybrida Petunia x hybrida Brassica rapa Brassica rapa	Oryza sativa Petunia x hybrida Petunia z hybrida	Citrus unshiu Nicotiana glauca Chenopodium rubrum Pisum sativum Nicotiana tabacum Nicotiana tabacum Armoracia rusticana Armoracia rusticana Populus nigra Populus balsamifera subsp. Populus nigra Populus balsamifera subsp.
	AAKO1/13.1 AE3328/6 BAAO5079.1 D26086 BAAO5070.1 AB035132 BAAC1919.1 AB006597 BAAC19112.1 AB000453 BAAL19114.1 AB000455 BAAC1928.1 AB000456 BAAL19926.1 AB000456 BAAC1928.1 AB006606 BAACT5791.1 AE271892 BAAC37631.1 AF271892 CAA68193.1 X99937 AAE767980.1 AF079782	4 t

Populus balsamifera subsp		Armoracia rusticana	Phaseolus	-			Medicado satira		01726		Brassics raps					Brassica	Brassica		juncea		Mesembryanthemum crystall	Mesembryanthemum	Coffea arabica	Cicer arietinum	Lycopersicon esculentum	Fagus sylvati	Actinidia deliciosa	Avicennia marina	Vicia faba	Typha latifolia	Nicotiana tabacum	Persea americana	Eichhornía crassipes	Eichhornia crassines	Avicennia marina	Avicennia marina	Misa aciminata	Eichhornia crassines	Oryza sativa	Oryza sativa
x97350		D90115	AF149277	X85228	AJ250121	1,07554	1.36157	AF014469	,	1459	D78498	D78491	X10850	L31940	D78494	AF200712	Y10852	Y10849	X10853	X10851	AF078912	AF000935	U11423	X95709	Z68138	AJ130886	L27813	AF333385	X77254	AF279655	AJ299253	AJ133145	AJ247196	AJ247090	AE334141	AF329968	AF268391	AJ247195	U43530	D89931
CAA66036.1	trichocarpa	BAA14143.1	AAD37427.1	CAA59485.1	CAB65334.1	AAB47602.1	AAB41811.1	AAC49820.1		SEO ID NO.	BAA11394.1	BAA11388.1	CAA71803.1	AAA74958.1	BAA11391.1	AAF70556.1	CAA71805.1	CAA71802.1	CAA71806.1	CAA71804.1	AAC27531.1	AAB61212.1	AAA19611.1	CAA65009.1	CAA92243.1	CAA10232.1	AAA53074.1	AAG50080.1	CAA54471.1	AAK28022.1	CAC12823.1	CAB77242.1	CAB53392.1	CAB53390.1	AAK11269.1	AAG61122.1	AAG44757.1	CAB53391.1	AAC49627.1	BAA14038.1
Arachis hypogaea	<i>(</i> 1)	Nicotiana tabacum	Stylosanthes humilis	Phaseolus vulgaris	Spinacia oleracea	Glycine max	Oryza sativa	Glycine max	Glycine max	Nicotiana tabacum	Lycopersicon esculentum	Asparagus officinalis	Lycopersicon esculentum	Spirodela polyrrhiza	Spinacia oleracea	Nicotiana tabacum	Populus nigra	Oryza sativa	Populus balsamifera subsp.		Spinacia oleracea	Spinacia oleracea	Armoracia rusticana	Medicago sativa	Spinacia oleracea	Spinacia oleracea	Lycopersicon esculentum	Lycopersicon esculentum	Populus balsamífera subsp.		Armoracia rusticana	Populus kitakamiensis	Mercurialis annua	Zea mays	Populus kitakamiensis	Gossypium hirsutum	Glycine max	Populus balsamifera subsp.		Glycine max
M37637	X94943	AB027753	L77080	AF149279	X10468	AF145349	D14997	051192	U51191	D42064	L13654	AB042103	L13653	222920	AF244921	D42065	D83225	AP001383	X97348		X16776	AF244924	X57564	x90693	X10463	AF244923	X71593	Y19023	X97349	,	D90116	038051	X91232	AJ401276	D30652	AF155124	AF007211	X97351	000	Ar.014502
AAA32676.1	CAA64413.1	BAA82307.1	AAB67737.1	AAD37429.2	CAA71494.1	AAD37375.1	BAA03644.1	AAD11482.1	AAD11481.1	BAA07663.1	AAA65637.1	BAA94962.1	AAA65636.1	CAA80502.1	AAF63024.1	BAA07664.1	BAA11853.1	BAA92500.1	CAA66034.1	trichocarpa	CAA76374.2	AAF63027.1	CAA40796.1	CAA62226.1	CAA71489.1	AAF63026.1	CAA50597.1	CAB67121.1	CAA66035.1	trichocarpa	BAA14144.1	BAAU / 241.1	CAA62615.1	CAC21393.1	BAA06334.1	AAD43561.1	AAC98519.1	CAA66037.1	rrichocarpa 1	AMB9//34.1

WO 2002/010055			1 € 17 € 52 € 617 € 2 € 65
	durum	mn	
Hordeum vulgare Prunus dulcis Zea mays Pisum sativum Pisum sativum Hordeum vulgare Pisum sativum Lycopersicon esculentum Sorghum bicolor Hordeum vulgare	Triticum turgidum subsp. Elaeis guineensis Hordeum vulgare	Triticum turgidum subsp. Hordeum vulgare Hordeum vulgare Hordeum vulgare Hordeum vulgare Hordeum vulgare Fordeum vulgare Hordeum vulgare Hordeum tulgare Hordeum tulgare Nicotiana tabacum	Oryza sativa Lycopersicon esculentum Glycine max Glycine max Glycine max Glycine max Glycine max
AF181456 AF172263 X15290 X63063 X63061 U91970 AF181457 X63062 U26423 U63831 X15288 AF043087 AF181451 AF044807	X78431 AF236067 X98326	X78429 AF043089 AF181453 AF043088 AF181452 X15289 X71362 U91969 L463 X95343	1464 X68807 1465 U70076 S45035 AB029441 S45035 X64448 X80039
AAF01694.1 AAD50291.1 CAA44789.1 CAA44787.1 AAF01695.1 CAA44788.1 AAC05927.1 AAD02253.1 AAF01689.1 AAF01689.1 AAF01689.1 AAF01689.1 AAF01689.1 AAF01689.1	CAA55194.1 AAF60172.1 CAA66970.1	CAA55192.1 AAD02255.1 AAF01691.1 AAF01690.1 CAA33363.1 CAA50499.1 AAB51380.1 SEQ ID NO. CAA64636.1	SEQ ID NO. CAA48706.1 SEQ ID NO. AAC63057.1 AAB23482.1 BAA82254.1 AAB23483.1 CAA45778.1
Oenanthe javanica Lycopersicon esculentum Silene vulgaris Nicotiana glutinosa Prunus persica Prunus armeniaca Pyrus pyrifolia Pimpinella brachycarpa Lycopersicon esculentum Lycopersicon esculentum Citrus unshiu Brassica napus Glycine max Glycine max	Medicago sativa Glycine max Viqna unquiculata	Vigna unguiculata Phaseolus vulgaris Solanum tuberosum Pisum sativum Pisum sativum Zea mays Zea mays Zea mays Zea mays Zea mays Zea mays Vigna unguiculata	Vigna unguiculata Vigna unguiculata Glycine max Glycine max Helianthus annuus Helianthus annuus Helianthus annuus
AF017787 268310 AF101825 U46543 AJ243532 U97494 AB021785 AF093585 L77963 Z68309 AB008100 AB008100 AB00817 M64337 M72894	X97059 U31648 AF052057	AF052058 X58274 AF133814 X73369 X64417 X61391 X83076 X83077 X61392 M58336 AF028072	X67756 X67755 AF052511 AF052513 1462 AJ010944 AJ002741 X92647 AF043091
AAB70560.1 CAA92652.1 AAC72984.1 AAB05223.1 CAB56620.1 AAB8276.1 BAA944.1 AAB04674.1 CAA92651.1 BAA31561.1 SEQ ID NO. 1 AAB53099.1 AAB33959.1	CAA65771.1 AAB18928.1 AAC06026.1	AACO6027.1 CAA41213.1 AAD50644.1 CAA51786.1 CAA43663.1 CAA58146.1 CAA58147.1 CAA58147.1 CAA43664.1 AAC15241.1	CAA47984.1 CAA47983.1 AAC12282.1 AAC12281.1 SEQ ID NO. 1 CAA09421.1 CAA63339.1 AAD02257.1

talli	3	370
Vicia faba Mesembryanthemum crystalli Spinacia oleracea Glycine max Oryza sativa Oryza sativa	Glycine max Euphorbia esula Glycine max	Cea mays Zea mays Zea mays Zea mays Solanum tuberosum Glycine max Glycine max Alopecurus myosuroides Glycine max Zea mays Alopecurus myosuroides Zea mays
AF186020 226846 230332 M67449 AP002482 AB011968	1467 AF243368 AF239928 AF243363 AF243361 AF243374 AF243366 AF243369 AF243375 AF243369 AF243369	AF245573 AF244693 AF244693 AF243370 AF243370 AF244688 AJ010449 AF244689 AF244686 AF244689 AF244690 AF244690 AF244690 AF244690 AF243360 AF244698 AF244698 AF244698
AAF27340.1 CAA81443.1 CAA82993.1 AAA34002.1 BAA96628.1 BAA83689.1	SEQ ID NO. AAG34803.1 AAF64450.1 AAG34798.1 AAG34797.1 AAG34809.1 AAG34807.1 AAG34804.1 AAG34802.1 AAG34802.1 AAG34802.1	AAG34836.1 AAG34836.1 AAG84430.1 AAC18566.1 AAG34800.1 CAA09187.1 CAA09188.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34848.1 AAG34848.1 AAG34849.1 AAG34849.1 AAG34849.1
" m' m' m' m' "	Solanum tuberosum Brassica oleracea Psophocarpus tetragonolobus Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Solanum tuberosum Lheobroma cacao Solanum tuberosum Theobroma cacao	Nicotiana tabacum Zea mays Nicotiana tabacum Oryza sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Solanum tuberosum Brassica napus Solanum tuberosum Brassica napus Cucumis sativa Clycine max Glycine max Hordeum vulgare Oryza sativa
S45092 D13974 X64447 S96732 S96735 S96733 AF314823	X62095 U18995 S46970 D17331 D17328 M96257 U30814 X74985 X56509 X64370	AF165186 U83625 AJ302651 AF216314 D31964 AF172282 AJ010091 X95597 AJ010093 X82548 X65606 AF062479 Y10036 AJ007990 D26602 AF128443 X65604
AAB23464.1 BAA03084.1 CAA45777.1 AAC60535.1 AAC60537.1 AAC20289.1	CAA44005.1 AAB68964.1 AAB23733.1 BAA04151.1 BAA04148.1 AAA18564.1 AAC49602.1 CAA52919.1 CAA52919.1 CAA39860.1 CAA45723.1	AAK64262.1 AAK68393.1 CAC24705.1 AAG40578.1 BAAG53979.1 BAAG53979.1 BAAG53979.1 CAA08995.1 CAA08997.1 CAA08997.1 CAA07813.1 BAAC5649.1 AAC1942.1 CAA07813.1 BAAC5649.1

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	Nicotiana sylvestris Oryza sativa Chlorella protothecoides Nicotiana tabacum Nicotiana tabacum Oryza sativa Oryza sativa Pisum sativum Oryza sativa Oryza sativa	Chlamydomonas reinhardtii Nicotiana tabacum Nicotiana tabacum Medicago sativa Medicago sativa Medicago sativa Nicotiana tabacum Ipomoea batatas Nicotiana tabacum Pisum sativum Capsicum annuum Euphorbia esula Medicago sativa Petroselinum crispum Nicotiana tabacum
AF080542 AJ132228 Y09591 Y09826 AF080543 AF080544 Y11121 AF061434 Z68759 AF061435 AF061435	U64823 AB022783 AJ238635 AJ299255 AJ299255 X69971 AF241166 AF216317 AF154329 AF216316 AF216316	AB035141 AB055515 X83879 X66469 L07042 X83880 AF149424 D61377 X70703 AF247136 AF247136 AJ224336 Y12785 U94192 AF247135
AAD16013.1 CAA7068.1 CAA70969.1 AAD16014.1 AAD16015.1 CAA72006.1 AAF15944.1 CAA92992.1 AAF15946.1 AAF15946.1		BAB18271.1 BAB32406.1 CAA58760.1 CAA57719.1 CAA57719.1 CAA58761.1 AAD37790.1 BAA09600.1 CAA50036.1 AAF81420.1 AAF65766.1 CAB37188.1 CAB37188.1 CAB37188.1
Prunus armeniaca Oryza sativa Physcomitrella patens Daucus caróta Physcomitrella patens Physcomitrella patens Glycine max Zinnia elegans Helianthus annuus Glycine max	Daucus carota Physcomitrella patens Lycopersicon esculentum Physcomitrella patens Physcomitrella patens Oryza sativa Physcomitrella patens Oryza sativa Daucus carota Oryza sativa Daucus carota Oryza sativa Ciycine max Zinnia elegans	Fimpinella brachycarpa Physcomitrella patens Physcomitrella patens Pimpinella brachycarpa Craterostigma plantagineum Pimpinella brachycarpa Zinnia elegans Oryza sativa Oryza sativa Cryza sativa Slorine max Solanum tuberosum Ricinus communis
1469 AF139497 AF145730 AB028073 D26578 AB028076 AB028072 AF184277 AB042769 AF184278	D26575 ABD28077 X94947 ABD28078 ABD28079 AF145728 ABD28080 D26576 D26574 X92489 AB042760	X94449 AB028075 X94375 AF145726 AJ005833 X95193 AB042766 AC079890 AF211193 AB042768 X96681 U30475 1470 Y09825 AJ007574
	BAA05624.1 BAA93465.1 CAA64417.1 BAA93466.1 BAA037697.1 AAD37698.1 BAA05625.1 BAA05622.1 AAD37698.1 BAA05622.1 AAB37698.1 BAA05622.1	CAA64221.1 BAA93463.1 CAA64152.1 AAD37695.1 CAA64491.1 BAB18168.1 AAK31270.1 AAK131270.1 AAK19980.1 BAB18170.1 CAA65456.2 AAA74017.1 SEQ ID NO. CAA70968.1 CAA70968.1

372	
Cicer arietinum Cicer arietinum Cicer arietinum Helianthus tuberosus Helianthus tuberosus Pisum sativum Nicotiana tabacum Petunia x hybrida Pisum sativum Nicotiana tabacum Petunia x hybrida Clycine max Persea americana Nepeta racemosa Glycine max Eschscholzia californica Nepeta racemosa Glycine max Asparagus officinalis Clycine max Glycine max	Oryza sativa Oryza sativa Oryza sativa Oryza longistaminata Oryza sativa
AJ238439 AJ012581 AJ000478 AJ000477 AF175278 U29333 X96784 AB006790 AF218296 X95342 AF155332 D83968 M32885 X09424 AF022461 AF022461 AF022461 AF022461 AF022458 AF022461 AF022461 AF022458 AF02446 AF025127 AF244889 X89226 AF197947 AF244889 X89226 AF197947 AF244889	AP000391 AP000559 AF172282 U72723 U37133
CAB41490.1 CAA10067.1 CAA04117.1 CAA04116.1 AAG09208.1 AAC49188.2 CAA65580.1 BAA92894.1 BAA644132.1 CAA7655.1 AAB94587.1 AAB94587.1 AAB94590.1 BAB40324.1 AAB94590.1 BAB40324.1 AAB94590.1 BAB4071.1 BAA19701.1 BAA19701.1 BAA19701.1 BAA19701.1 BAA59906.1 AAF91323.1 CAA61510.1 AAF91323.1 CAA61510.1 AAF91322.1 CAA61510.1 AAF91322.1 CAA61510.1 AAF91322.1	BAA84787.1 BAA84787.1 AAF34426.1 AAC80225.1 AAC49123.1
Pisum sativum Medicago sativa Zea mays Avena sativa Oryza sativa Selaginella lepidophylla Cicer arietinum Chenopodium rubrum Pisum sativum Nicotiana tabacum Antirrhinum majus Solanum tuberosum Oryza sativa Seameys Hordeum vulgare Secale cereale Secale cereale Nicotiana tabacum Plantago major Nicotiana tabacum	Cicer arietinum Glycyrrhiza echinata Lotus japonicus Glycyrrhiza echinata
AF153061 X82270 AB016802 X79993 AF079318 AF332873 AF216315 AJ250311 AB016801 AF129087 AF194415 AF194416 U18365 U96716 AAC275316 X10160 AB008187 AF289467 X10160 AB008187 AF289467 X97637 X79779 APC289467 X97779 APC289467 X97779 APC289467 X97779 APC289467 X97779 APC289467 X97779 APC28962 AFC7755 APC779 APC28962 AFC7755 APC7763	1473 AJ239051 AB001379 AB025016 AB022732
	SEQ ID NO. 1 CAB43505.1 BAA22422.1 BAA93634.1 BAA74465.1

	373	
Malus x domestica Fragaria x ananassa Fragaria x ananassa Robinia pseudoacacia Pisum sativum	Ricinus communis Ricinus communis Vicia faba Nepenthes alata Solanum tuberosum Nepenthes alata Solanum tuberosum Nepenthes alata Solanum tuberosum Ricinus communis Nepenthes alata Vicia faba Ricinus communis Vicia faba Nicotiana sylvestris Vicia faba Nicotiana sylvestris Lycopersicon esculentum Oryza sativa Lycopersicon esculentum Atriplex hortensis Chlorella protothecoides Brassica napus Brassica napus Brassica rapa Brassica rapa Armoracia rusticana Fagus sylvatica	
1481 AF336307 L44142 X52429 AY009094 AF029242	1482 AJ007574 AJ13228 Y09591 AF080543 Y09825 Z68759 AF080542 AF061435 X11121 AF061435 X11121 AF061436 U31932 U64823 AF014810 AB022783 AF014809 AF014809 AF014809 AF274032 AJ238635 AJ338635 AJ30888)
SEQ ID NO. AAK25768.1 AAK73872.1 CAA36676.1 AAB84193.1 AAB84193.1 AAC62104.1		
Oryza longistaminata Ipomoea nil Oryza sativa Oryza longistaminata Nicotiana tabacum Ipomoea nil	Phaseolus vulgaris Ipomoea trifida Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica napus Brassica napus Brassica oleracea Brassica rapa	
U72725 U77888 U72724 U72726 AB029327 U77888	1480 AF078082 U20948 Y12531 Y14286 X98520 Y12530 U82481 M976647 AJ245479 M76647 Y14285 AB000970 Y18259 Y18259 Y18259 Y18259 Y18259 AB000970 Y18259 AB032474 AB032473 AB032473 AB032473 AB041503 AF08885	
AAB82755.1 AAG52992.1 AAB82756.1 AAB82753.1 BAA88636.1 AAG52994.1	SEQ ID NO. 3 AAD21872.1 AAC23542.1 CAA74145.1 CAA74145.1 CAA73133.1 AAA33900.1 CAB89179.1 AAA23000.1 CAB41878.1 CAB41878.1 CAB41878.1 CAB41878.1 CAB41878.1 CAB41878.1 CAB41879.1 BAA23676.1 BAA23676.1 BAA25097.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1 BAA92836.1	

BAA76745.1	D89972	Vigna mungo	AAG36774.1	AF210616	
BAA76744.1	D89971	Viqna mungo ·	CAA/3309.1	X15219	Oryza sativa subsp. indica
CAB64545.1	AJ131719	Zea mays	SEQ ID NO.	1489	
BAA04225.1	D17401	Ricinus communis	BAA08094.1	D45066	Cucurbita maxima
CAB16318.1	299174	Vicia narbonensis	BAA88190.1	AP000836	Orvza sativa
CAA07639.1	AJ007743	Vicia sativa	CAA46875.1	X66076	Zea mays
CAB51545.1	AJ243876	Lycopersicon esculentum	AAB70119.1	U82230	Zea mays
	1		CAA09976.1	AJ012284	Triticum aestivum
	1486		CAA04440.1	AJ000991	Hordeum vulgare
CAA45701.1	X64349	Nicotiana tabacum	CAB89831.1	AJ242853	Solanum tuberosum
CAA78043.1	211999	Lycopersicon esculentum	CAA66604.1	X97945	Nicotiana rabacum
CAA35601.1	X17578	Solanum tuberosum	BAA78574.1	AB028131	Orvza sativa
BAA96365.2	AB043960	Bruguiera gymnorhiza			
AAC04808.1	AF037457	Fritillaria aqrestis	SEO ID NO.	1490	
BAA02554.1	. D13297	Pisum sativum		AJ279059	Total support
CAA40670.1	X57408	Triticum aestivum	CAA64475 1	XOSUGB	Two pared one community
AAD38521.1	AF139818	Brassica napus	1 0878784	AF30651B	propersion escurencial
AAD55562.1	AF110780	Volvox carteri f. nagariensis	AAG11397.1	AF118858	Luconereicon esculontum
CAA36674.1	X52427	m	AAD16012.1	AF080541	
			AAF01774 1	DE188744	מיייים מדמום
SEQ ID NO.	1487		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	FF / 001 14	4 sndpn parsepra
	X10156	Brassica napus	SEO TO NO	1491	
CAA71237.1	X10155			47.74 A C A C A C A C A C A C A C A C A C A	
CAB62165.1	AJ223307		1.201.302.E.	NEO51010	
AAC49181.1	039289		1.03001440	AE 2 J L O L O	rageres erecta
AAC49182.1	02220		CAM12002.1	AJZZ4683	Narcissus pseudonarcissus
	0.00	prassica napus	AAF13698.1	AF195507	Lycopersicon esculentum
SEO ID NO.	1488	-	CAMO1963.1	ABYBY/	Capsicum annuum
	X95297	Lycoperet con seem 1 and 1 and 1	AMG14399.I	AF054629	Oryza sativa
CAA67600 1	01266X	Tycoperation cocuration	1.28555AC.1	CT88/Y	an .
1 0055 PH 47	0.100.A	Article escarencin	CAA423/3.1	X29948	
ני אפנפראהי	2000012	First Intimum majus	AAA68865.1	M88683	Lycopersicon esculentum
L. 000000000000000000000000000000000000	413996 711717	Ferunia x hybrida	CAA55078.1	X78271	Lycopersicon esculentum
AAE 22230.1	AFIDI/II	Pimpinella brachycarpa	CAB59726.1	X71023	Lycopersicon esculentum
CAMBABIA.I	X95296	Lycopersicon esculentum	AAG10645.1	AF086803	
BAA88224.1	AB028652	Nicotiana tabacum	AAG10426.1	AF251014	u
CAA/8387.1	213997	Petunia x hybrida	BAB08179.1	AB046992	Citrus unshin
BAA88221.1	AB028649	Nicotiana tabacum	AAA99519.1	L39266	Zea mavs
BAA88222.1	AB028650	Nicotiana tabacum	CAA48195.1	X68058	Capsicim annum
CAA66952.1	X98308	Lycopersicon esculentum	AAC12846.1	U37285	
AAA33500.1	M73028	Zea mays ·	CAA75094.1	Y1.4807	Dunaliella bardawil

Glycine max	Nicotiana tabacum	Populus nigra	Glycine max	Lycopersicon hirsutum	Zea mays	Malus x domestica	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon hirsutum	Populus nigra	Lophopyrum elongatum	Lophopyrum elongatum	Oryza sativa	Lycopersicon hirsutum	Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Lycopersicon pimpinellifolium	Brassica napus	3	75	Phaseolus vulgaris	Ipomoea trifida	Brassica oleracea	Zea mays	Brassica oleracea		Brassica oleracea	Brassica oleracea	Brassica oleracea	Brassica oleracea	Brassica oleracea	Brassica oleracea		Brassica napus	Brassica oleracea	Brassica rapa	Brassica napus	Brassica oleracea	Brassica rapa	Brassica rapa
AF197946	D31737	AB041503	AF244888	AF318490	U67422	AE053127	U59316	AF220603	AF318493	AB041504	AE339747	AF131222	AF172282	AF318491	U59315	002271	AF220602	AY007545		1497	AF078082	020948	Y12531	U82481	Y14286	AB000970	X12530	X98520	Y14285	Y18260	X18259	M76647	AJ245479	M97667	AB032473	D38563	000443	AB032474	AB054061	D38564
AAF59905.1	BAA06538.1	BAA94509.1	AAF91322.1	AAK11566.1	AAB09771.1	AAC36318.1	AAB47421.1	AAE76313.1	AAK11569.1	BAA94510.1	AAK11674.1	AAF43496.1	AAF34428.1	AAK11567.1	AAB47423.1	AAC48914.1	AAF76306.1	AAG16628.1		SEQ ID NO.	AAD21872.1	AAC23542.1	CAA73134.1	AAB93834.1	CAA74662.1	BAA23676.1	CAA73133.1	CAA67145.1	CAA74661.1	CAB41879.1	CAB41878.1	AAA33000.1	CAB89179.1	AAA33008.1	BAA92836.1	BAA07576.1	AAA62232.1	BAA92837.1	BAB21001.1	BAA07577.2
Oryza sativa	Haematococcus pluvialis			Brassica napus	Nicotiana plumbaginifolia	Oryza sativa	Triticum aestivum	Hordeum vulgare	Triticum aestivum	Hordeum vulgare	Chlorella sorokiniana	Chlamydomonas reinhardtii	Triticum aestivum	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii			Glycine max	Helianthus annuus	Triticum aestivum	Oryza sativa	Onoclea sensibilis			Pisum sativum	Pisum sativum			Phaseolus vulgaris	Oryza sativa	Oryza sativa	Catharanthus roseus	Brassica napus	Oryza sativa	Daucus carota	Oryza sativa	Oryza sativa	Glycine max	Glycine max	Glycine max
AF049356	X86783		1492	AJ293028	X08210	AB008519	AF332214	034198	AF288688	U34290	AY026523	225438	AF153602	225439	AJ223296		1493	U82810	X92646	AB019617	AF017356	218809		1494	X98739	X98738		1496	AF285172	AP000559	AP000391	273295	AY028699	69000	093048	X89226	AB023482	AE197947	AF244890	AF244889
AAD02489.1	CAA60479.1		SEQ ID NO. 1	CAC05338.1	CAA69387.1	BAA33382.1	AAK19519.1	AAC49531.1	AAG01172.1	AAC49532.1	AAK02066.1	CAA80925.1	AAD38794.1	CAA80926.1	· CAA11238.1			AAC16403.1	CAA63338.1	BAA76309.1	AAB70536.1	CAA79273.1		SEQ ID NO. 1	CAA67291.1	CAA67290.1		SEQ ID NO. 1	AAG00510.1	BAA84787.1	BAA83373.1	CAA97692.1	AAK21965.1	CAB51834.1	AAB61708.1	CAA61510.1	BAA78764.1	AAE59906.1	AAF91324.1	AAF91323.1

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Ivcopersicon esculentum	Nicotiana tabacum	Orwan cativo	Ranhanne eatime	Goodman biscutton	besselve milesteum	Finascolus vulgaris	spinacia oferacea	Lycopersicon esculentum	Cucurbita pepo	Spinacia oleracea	Asparadus officinalis	Populus kitakamiensis			Nicotiana sylvaetrie	Medican sative	Contract of the Contract of th	Spinacia Oretacea		Glycine max	Persea americana	Thlaspi arvense	Asparagus officinalis	Sorahum bicolor	Asparadus officinalis	Nebeta racemosa	Nicotiana tabacum	Glycine max	Capsicum annuum	Solanum melongena	Mentha x piperita	Pisum sativum	Nepeta racemosa	Mentha x piperita	Solanum melongena	Solanum melongena	Lycopersicon esculentum x		Nicotiana tabacum	Mentha x piperita	Nicotiana tabacum	
X71593	D11396	AP001383	X91172	AF155124	DF149280	016770	0//077	Y19023	Y17192	Y10468	AB042103	D30653	X97351		M74103	X90694	DF244924	17/11/11	1499	AF022460	M32885	L24438	AB037245	AF029858	AB037244	X09423	AF166332	AF022459	AF122821	X70981	233875	AF218296	Y09424	AF124816	D14990	X71654	AF150881	n peruvianum		AF124817	X95342	
CAA50597.1	BAA01992.1	BAA92500.1	CAA62597.1	AAD43561 1	AAD37430 1	ר ארבארממי	1.07074ED	CABO/IZI.I	CAA76680.1	CAA71494.1	BAA94962.1	BAA06335.1	CAA66037.1	trichocarpa	AAA34050.1	CAA62227.1	AAF63027_1		SEO ID NO.		AAA32913.1	AAA19701.1	BAB40324.1	AAC39318.1	BAB40323.1	CAA70575.1	AAD47832.1	AAB94588.1	AAF27282.1	CAA50312.1	CAA83941.1	AAG44132.1	CAA70576.1	AAD44151.1	BAA03635.1	CAA50645.1	AAD37433.1	Lycopersicon	CAA65580.1	AAD44152.1	CAA64635.1	
Brassica oleracea	Brassica rapa	Brassica rapa	Nicotiana tabacum	Brassica napus				Owing highe	Oryza sativa			Spinacia oleracea	Glycine max	Glycine max	Lycopersicon esculentum	Oryza sativa	Spirodela polyrrhiza	_	Nicotiana tabacum	Arachis hypogaea	Nicotiana tabacum	Stylosanthes humilis		Nicotiana tabacum	Glycine max	Scutellaria baicalensis	Glycine max	Picea abies		S)	Spinacia oleracea	Ipomoea batatas	Glycine max	Zea mays	Glycine max	Medicago sativa	Oryza sativa		Oryza sativa	∙os	Nicotiana tabacum	
218921	D30049	D88193	AF088885	AX028699	AX007545	AB041503	AB041504	20727074	50551000	0	1478	X16776	051191	U51192	L13654	D14997	222920	L13653	D42065	M37637	D42064	L77080	X94943	AB027753	051194	AB024437	AF145349	AJ250121	AB027752	AF149279	AF244921	AJ242742	051193	AJ401276	AF014502	X90693	D49551	AP001073	AP001081	AE00/211	J02979	
•	BAA06285.1	BAA21132.1	AAD52097.1	AAK21965.1	AAG16628.1	BAA94509.1	BAA94510.1	1 00000000	1.0000000			CAA76374.2	AAD11481.1	AAD11482.1	AAA65637.1	BAA03644.1	CAA80502.1	AAA65636.1	BAA07664.1	AAA32676.1	BAA07663.1	AAB67737.1	CAA64413.1	BAA82307.1	AAD11484.1	BAA77387.1	AAD37375.1	CAB65334.1	BAA82306.1	AAD3/429.2	AAF63024.1	CAB94692.1	AAD11483.1	CAC21393.1	AAB97734.1	CAM62226.1	BAA08499.1	BAA89584.1	BAA90365.1	AACSESTS.I	AAA34108.1	

377

Oryza sativa Phaseolus vulgaris	Oryza sativa Populus pigra	Brassica napus	Populus nigra	Catharanthus roseus		Oryza sativa	Oryza sativa	Oryza sativa	Lophopyrum elongatum	Lophopyrum elongatum	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Zea mays	Lycopersicon esculentum				Brassica oleracea			Malus so.	Catharanthus roseus		Catharanthus roseus	Malus x domestica	Vitis vinifera	Atropa belladonna	Medicado sativa	Persea americana	Perilla frutescens	Pisum sativum	Medicago sativa	Zea mays	Nicotiana tabacum	Chrysanthemum x morifolium	Hyoscyamus niger
L27821 AF078082	AC073405 AB041504	AY007545	AB041503	273295	69000	AP000559	AP000391	AP001551	AF131222	AE339747	AP001800	AP001800	AB023482	AP001800	U82481	059318	AF220603	U59317	AF220602	X98520		1511	X71360	U71604	071605	AF008597	AF117270	X75965	AB017153	X78994	U23066	AB002816	093210	X81812	U04434	AF036093	U86837	D26583
AAA33915.1 AAD21872.1	AAG03090.1 BAA94510.1	AAG16628.1	BAA94509.1	CAA97692.1	CAB51834.1	BAA84787.1	BAA83373.1	BAA92954.1	AAF43496.1	AAK11674.1	BAA94529.2	BAA94517.1	BAA78764.1	BAA94516.1	AAB93834.1	AAB47422.1	AAF76314.1	AAB47424.1	AAF76307.1	CAA67145.1		SEQ ID NO.	CAA50498.1	AAC49826.1	AAC49827.1	AAB97311.1	AAD26206.1	CAA53579.1	BAA78340.1	CAA55628.1	AAC97525.1	BAA19657.1	AAC86820.1	CAA57410.1	AAA91227.1	AAC15414.1	AAB97310.1	BAA05630.1
Glycine max Solanum tuberosum		Citrullus lanatus	Citrullus lanatus	Citrullus lanatus	Spinacia oleracea	Spinacia oleracea	Allium tuberosum	Allium cepa				Arabidopsis lyrata subsp.		Lycopersicon esculentum x		Populus balsamifera subsp.		•	Petunia x hybrida	Callistephus chinensis	Pelargonium x hortorum	Petunia x hybrida	Petunia x hybrida	Petunia x hybrida	Catharanthus roseus	Petunia x hybrida	Lycianthes rantonnei	Campanula medium	Solanum melongena	Solanum melongena	Solanum melongena			Nicotiana tabacum			Daucus carota	Brassica napus
U04785 X95516	1505	D49535	D85624	AB006530	D88530	D88529	AB040502	AF212156	,	1506	AF139532	AJ295586				AJ010324		AF313491	AF155332	AF313489	AF315465	222545	D14588	AF081575	AJ011862	222544	AF313490	D14590	X71654	X70824	X70981	,	1508	058971	•	1510	093048	AY028699
AAA03726.1 CAA64769.1	SEQ ID NO.	BAA08479.1	BAA12843.1	BAA21827.1	BAA13635.1	BAA13634.1	BAA93050.1	AAF19000.1			AAD48912.1	CAC26920.1	petraea	AAD37433.1	Lycopersicon	CAB65335.1	trichocarpa	AAG49301.1	AAD56282.1	AAG49299.1	AAG49315.1	CAA80266.1	BAA03438.1	AAC32274.1	CAA09850.1	CAA80265.1	AAG49300.1	BAA03440.1	CAA50645.1	CAA50155.1	CAA50312.1			AAB3/246.1			T.907 109.T	AAKZ1965.1

AAA33387.1	M62719	Hyoscyamus niger	BAA82307.1	AB027753	Nicotiana tabacum
T. / / COCOWY		Daucus carota	AAB6//3/.1	ሴ//ሀ8ሀ ልሞ149279	Stylosanthes humilis
	1515		CAA71494.1	X10468	riascolus valgalis Spinacia oleracea
AAC32138.1	AF051237	Picea mariana	AAD37375.1	AF145349	Glycine max
	i		AAF63024.1	AE244921	Spinacia oleracea
SEQ ID NO.	1517		CAA66037.1	X97351	Populus balsamifera subsp.
AAF61647.1	AF190634	Nicotiana tabacum	trichocarpa		
BAA89009.1	AB027455	Petunia x hybrida	AAA65637.1	L13654	Lycopersicon esculentum
BAA36421.1	AB013596	Perilla frutescens	CAA40796.1	X57564	Armoracia rusticana
BAA36423.1	AB013598	Verbena x hybrida	AAD11482.1	051192	Glycine max
BAA93039.1	AB033758	Citrus unshiu	CAA80502.1	222920	Spirodela polyrrhiza
BAA36422.1	AB013597	Perilla frutescens	BAA77387.1	AB024437	Scutellaria baicalensis
AAF98390.1	AF287143	Brassica napus	CAA59485.1	X85228	Triticum aestivum
AAD21086.1	AF127218	Forsythia x intermedia	BAA07663.1	D42064	Nicotiana tabacum
BAA12737.1	D85186	Gentiana triflora	BAA11853.1	D83225	Populus nigra
BAA90787.1	AB038248	Ipomoea batatas	BAA07664.1	D42065	Nicotiana tabacum
AAF17077.1	AF199453	•–	AAD37430.1	AF149280	Phaseolus vulgaris
AAD04166.1	AF101972	Phaseolus lunatus	AAD11481.1	051191	Glycine max
BAA89008.1	AB027454	Petunia x hybrida	CAB94692.1	AJ242742	atas
AAB86473.1	AF028237	Ipomoea purpurea	BAA03644.1	D14997	Oryza sativa
BAA19659.1	AB002818	Perilla frutescens	AAD43561.1	AF155124	Gossypium hirsutum
CAA54612.1	X77462	Manihot esculenta	BAA06334.1	D30652	Populus kitakamiensis
BAA83484.1	AB031274	Scutellaria baicalensis	BAA92500.1	AP001383	Oryza sativa
BAB41018.1	AB047091	Vitis labrusca x Vitis vinifera	BAA90365.1	AP001081	Oryza sativa
CAA59450.1	X85138	Lycopersicon esculentum	BAA89584.1	AP001073	Oryza sativa
BAB41020.1	AB047093	Vitis vinifera	AAC49820.1	AF014469	
BAB41022.1	AB047095	Vitis vinifera	CAA66034.1	X97348	Populus balsamifera subsp.
AAB81682.1	AF000371	Vitis vinifera	trichocarpa		•
BAB41017.1	AB047090		BAA14144.1	D90116	Armoracia rusticana
BAB41026.1	AB047099	vin	AAB97734.1	AF014502	Glycine max
BAB41024.1	AB047097		CAA37713.1	X53675	Triticum aestivum
BAB41025.1	AB047098		AAC05277.1	AF049881	Linum usitatissimum
•	AB047096	Vitis vinifera	CAA66035.1	X97349	Populus balsamifera subsp.
•	AB047094	Vitis vinifera	trichocarpa		•
•	AB047092	Vitis vinifera	BAA06335.1	D30653	Populus kitakamiensis
AAB81683.1	AF000372	Vitis vinifera	CAA39486.1	X56011	Triticum aestivum
	,		BAA03911.1	D16442	Oryza sativa
	1518		BAA94962.1	AB042103	Asparagus officinalis
CAA64413.1	X94943	Lycopersicon esculentum	AAC49821.1	AF014470	Oryza sativa
AAA32676.1	M37637	Arachis hypogaea	AAD37427.1	AF149277	Phaseolus vulgaris

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			Pisum sativum	Pisum sativum	Pisum sativum	Pisum sativum	Nicotiana tabacum	Lactuca sativa	Lycopersicon esculentum	Lactuca sativa	Lycopersicon esculentum	Cucurbita maxima	Lactuca sativa	Cucurbita maxima	Eustoma grandiflorum	Lactuca sativa	Pisum sativum	Pisum sativum	Pisum sativum	Lactuca sativa	Arabidopsis lyrata subsp.		Phaseolus vulgaris		Nicotiana tabacum	Lolium perenne	Lycopersicon esculentum	Citrus sinensis x Poncirus		Lolium perenne	•		Oryza sativa			Populus nigra	Daucus carota	Brassica napus		Phaseolus vulgaris
1529	AF001219	093210	AF010167	AE007766	AE004730	AE010168	AB032198	AB012205	AB010991	AB012206	AB010992	AJ006453	AB031203	U63650	AB049408	AB031202	AF100955	AF056935	AF101383	AB031206	AJ295607		070531	X71360	AB012856	AX014277	AF049898	AJ250187		AY014280		1530	AF140228		1536	AB030083	U93048	AY028699	082481	AF'U / 8082
SEQ ID NO.	AAC49792.1	AAC86820.1	AAC49793.1	AAC96017.1	AAC96015.1	AAC49794.1	BAA89316.1	BAA37129.1	BAA34124.1	BAA37130.1	BAA34125.1	CAB92914.1	BAB12439.1	AAB64347.1	BAB32734.1	BAB12438.1	AAD45425.1	AAF08609.1	AAF13735.1	BAB12442.1	CAC26921.1	petraea	AAC49757.1	CAA50498.1	BAA32156.1	AAG43043.1	AAD15755.1	CAB96202.1	trifoliata	AAG43044.1		SEQ ID NO.	AAG43286.1		SEQ ID NO.	BAA82556.1	AAB61708.1	AAK21965.1	AAB93834.1	AAUZI8/Z.I
		Populus balsamifera subsp.		Nicotiana tabacum	Medicago sativa	Triticum aestivum			Zea mays	Glycine max	Euphorbia esula	Glycine max	Dunaliella tertiolecta			Daucus carota	Beta vulgaris			Glycine max	Zea mays	Pisum sativum	Helianthus tuberosus	•		Nicotiana sylvestris	Nicotiana tabacum	Matricaria chamomilla	Nicotiana sylvestris	Nicotiana tabacum	Oryza sativa	Oryza sativa	Nicotiana sylvestris	Nicotiana tabacum	Oryza sativa	Stylosanthes hamata			rucalyptus gunnii	
X16776	U4933I	X9/320		J02979	X90693	X85230		1520	X55967	L28831	AF227626	M31024	X66036	,	1522	L16983	X87931		1523	U20502	X77569	X17329	Z35108		1525	AB016264	D38123	AB035270	AB016266	AF057373	AF190770	AB026295	AB016265	AB024575	AB037183	U91857		1528	/6/007	
CAA76374.2	BAAU6499.1	CAA66036.1	trichocarpa	AAA34108.1	CAA62226.1	CAA59487.1		SEQ ID NO.	CAA39438.1	AAC14469.1	AAE34771.1	AAA34006.1	CAA46835.1			AAA33136.1	CAA61158.1			AAA80588.1	CAA54678.1	CAA76741.1	CAA84491.1			BAA97122.1	BAA07321.1	BAA87068.1	BAA97124.1	AAC62619.1	AAF05606.1	BAA81845.1	BAA97123.1	BAA76734.1	BAB03248.1	AAD00708.1	٠	SEQ ID NO.	CAMB12/3.1	

	X/SU88 NICOTIANA TADACUM X13754 Spinacia oleracea	AF314182 Triticum aestivum	U66403 Zea mays	Z26595 Zea mays	U66404 Zea mays		Z26632 Flaveria trinervia	AY028422 Oryza sativa	U66402 Nicotiana tabacum	AF223359 Plastid Mesembryanthemum		U13632 Brassica oleracea	U66401 Nicotiana tabacum	AF173679 Beta vulgaris		93	AF172172 Medicago sativa	Y00296 Trema tomentosa	AF027215 Trema orientalis	U27194 Parasponia andersonii	AJ131349 Trema virgata	AJ131352 Trema virgata	X53950 Casuarina glauca		AJ131350 Trema virgata	AJ131351 Trema virgata	U47143 Glycine max	U94968 Hordeum vulgare	AF236080 Zea mays	U76031 Oryza sativa	U76028 Oryza sativa	AY026343 Lycopersicon esculentum	AY005818 Zea mays subsp. mays	U76029 Oryza sativa		_	AF218049 Physcomitrella patens
	CAA32016.1		AAB40649.1	CAA81349.1	AAB40650.1	CAA47430.1	CAA81385.1				crystallinum		AAB40647.1	AAD55058.1		SEQ ID NO. 1539		CAA68405.1	AAC28426.1	AAB86653.1												•		AAC49882.1 U		•	AAF66104.1 A
Ipomoea trifida Brassica oleracea	Oryza sativa Populus nigra	Brassica napus	Oryza sativa	Populus nigra	Oryza sativa	Glycine max	Oryza sativa		Oryza sativa	Oryza sativa	Glycine max	Brassica oleracea	Brassica oleracea	Glycine max	Brassica oleracea	Oryza sativa	Lophopyrum elongatum	Lophopyrum elongatum	Oryza sativa	Brassica oleracea	Brassica rapa	Brassica oleracea			Lycopersicon esculentum		Lycopersicon esculentum	Potamogeton crispus		Pisum sativum	Solanum tuberosum	Zea mays	Plastid Mesembryanthemum		Pisum sativum	Plastid Mesembryanthemum	
AAC23542.1 U20948 CAA73134.1 Y12531			·			Ī				L27821			CAA73133.1 Y12530					AAK11674.1 AE339747		CAB41878.1 Y18259	6.1 AB000	CAB41879.1 Y18260		15		x93301	AAD24966.1 AF109150	AAD25225.1 AF088279	15				AAF86908.1 AF223360	Ħ		AAF86906.1 AFZZ3358	crystallinum

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Pisum sativum Pisum sativum	Nicotiana tabacum Glycine max	Petunia x hybrida	Nicotiana tabacum	Glycine max	Glycine max	Cicer arietinum	Glycine max	Eschscholzia californica	as	Glycyrrhiza echinata	Nepeta racemosa	Solanum melongena	Glycine max	Torenia hybrida	Petunia x hybrida	Petunia x hybrida			Glycine max	Euphorbia esula	Oryza sativa	Lupinus luteus	Zea mays	1		Helianthus annuus	Nicotiana tabacum			Mesembryanthemum crystallinum	Nicotiana tabacum	Fagus sylvatica	Nicotiana tabacum	Lotus japonicus	Eagus sylvatica	Medicago sativa	Lotus japonicus	Mesembryanthemum crystallinum
U29333 AF218296	D83968	AF155332	X95342	AF135485	AF022461	AJ249800	D86351	AF014802	AB022733	AB001380	X09423	X71657	AF022458	AB028152	AF081575	AB006790		1542	L46848	AF227622	D21130	X93587	X07959		1544	AF030301	X56267		1547	AF075579	AJ277086	AJ277743	AJ277087	AF092431	AJ298987	Y1.1607	AF092432	AF075580
AAC49188.2 AAG44132.1	BAA12159.1	AAD56282.1	CAA64635.1	AAD38930.1	AAB94590.1	CAB56742.1	BAA13076.1	AAC39454.1	BAA74466.1	BAA22423.1	CAA70575.1	CAA50648.1	AAB94587.1	BAA84072.1	AAC32274.1	BAA92894.1		SEQ ID NO.	AAB63814.1	AAE34767.1	BAA04668.1	CAA63786.1	CAA69256.1		SEQ ID NO.	AAB84222.1	CAA39708.1			AAC36697.1	CAC10358.1	CAB90633.1	CAC10359.1	AAD17804.1	CAC09575.1	CAA72341.1	AAD17805.1	. AAC36698.1
Physcomitrella patens Cichorium intybus x Cichorium	Casuarina glauca	Sesbania rostrata	Pisum sativum	Pisum sativum	Medicago sativa	Medicago truncatula	Pisum sativum	Medicago sativa	Medicago sativa	Pisum sativum	Medicago sativa	Vicia faba	Canavalia lineata	Vicia faba	Vicia faba	Sesbania rostrata	Sesbania rostrata	Medicago sativa	Sesbania rostrata			Vitis vinifera	Vitis vinifera	Oryza sativa	Solanum tuberosum	Oryza sativa				Lotus japonicus	Cicer arietinum	Cicer arietinum	Glycyrrhiza echinata	Glycyrrhiza echinata	Helianthus tuberosus	Helianthus tuberosus	Persea americana	Pisum sativum
AX026342 AJ007507	L28826	M23313	AB015719	AB015721	M91077	X57733	AB015720	X14311	M36100	AB009844	X13375	254159	U09671	254158	254157	X13505	X13815	X54089	M23312		1540	097521	U97522	D16223	X07130	D16221		T # 7:	AJ239051	AB025016	AJ238439	AJ012581	AB001379	AB022732	AJ000478	AJ000477	M32885	AF175278
AAK14807.1 CAA07547.1	AAA33018.1	AAA03005.1	BAA31155.1	BAA31157.1	AAB48005.1	CAA40900.1	BAA31156.1	CAA32492.1	AAA32657.1	BAA24088.1		CAA90870.1	AAA18503.1		CAA90868.1		CAA32044.1	CAA38024.1	AAA03002.1			AAB65776.1	AAB65777.1	BAA03751.1	CAA30142.1	BAA03749.1	CN CH		CAB43505.1	BAA93634.1	CAB41490.1	CAA10067.1	BAA22422.1	BAA74465.1	CAA04117.1	CAA04116.1	AAA32913.1	AAG09208.1

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Populus balsamifera subsp.	Populus kitakamiensis Medicago sativa	Populus kitakamiensis	Vigna angularis	sativa	ia oleracea	8,	Triticum aestivum	Phaseolus vulgaris	Spinacia oleracea	Jo sativa	sativa	Arachis hypogaea	Spinacia oleracea	nna sylvestris	Armoracia rusticana		3	Spinacia oleracea	max max	max	Nicotiana tabacum	sicon esculentum	sicon esculentum	Nicotiana tabacum	ativa	Arachis hypogaea	Spirodela polyrrhiza	Stylosanthes humilis	Nicotiana tabacum	sicon esculentum	нах пах	Spinacia oleracea	пах	Spinacia oleracea	Phaseolus vulyaris	ativa		sicon esculentum
Populus	Populus Medicaqo	Populus	Vigna a	Oryzas	Spinacia	Zea mays	Tritico	Phaseol	Spinaci	Medicago	Oryzas	Arachis	Spinaci	Nicotiana	Armorac			Spinaci	Glycine	Glycine max	Nicotia	Lycopersicon	Lycopersicon	Nicotia	Oryza sativa	Arachis	Spirode	Stylosa	Nicotia	Lycopersicon	Glycine max	Spinaci	Glycine max	Spinaci	Phaseol	Oryza sativa	Glycine max	Lycopersicon
X97351	D11102 X90694	D38051	D11337	AF247700	AF244924	AJ401276	X85230	AF149280	X10465	L36157	D14997	M37637	X10468	M74103	X57564		1549	X16776	051192	U51191	D42064	L13654	L13653	D42065	D14997	M37637	222920	L77080	AB027753	X94943	051194	AF244921	U51193	X10468	AF149279	AP001383	AF007211	Y19023
CAA66037.1 trichocarpa	BAA01877.1 CAA62227.1	BAA07241.1	BAA01950.1	AAF65464.2	AAF63027.1	CAC21393.1	CAA59487.1	AAD37430.1	CAA71491.1	AAB41811.1	BAA03644.1	AAA32676.1	CAA71494.1	AAA34050.1	CAA40796.1		SEQ ID NO. 1	CAA76374.2	AAD11482.1	AAD11481.1	BAA07663.1	AAA65637.1	AAA65636.1	BAA07664.1	BAA03644.1	AAA32676.1	CAA80502.1	AAB67737.1	BAA82307.1	CAA64413.1	AAD11484.1	AAF63024.1	AAD11483.1	CAR71494.1	AAD37429.2	BAA92500.1	AAC98519.1	CAB67121.1
Mesembryanthemum crystallinum Zea mays	Mesembryanthemum crystallinum Mesembryanthemum crystallinum		atica	Zea mays	Oryza sativa	Fagus sylvatica			Trifolium repens	Medicago sativa	Spinacia oleracea	Medicago sativa	Scutellaria baicalensis	Spinacia oleracea	Glycine max	Stylosanthes humilis	Nicotiana tabacum	Nicotlana tabacum	Ipomoea batatas	Lycopersicon esculentum	Medicago sativa	Lycopersicon esculentum	Glycine max	Glycine max	Nicotiana tabacum	Lycopersicon esculentum	Glycine max	Medicago sativa	Glycine max	Phaseolus vulgaris	Armoracia rusticana	Petroselinum crispum	Spinacia oleracea	Gossypium hirsutum	Armoracia rusticana	Spinacia oleracea	Stylosanthes humilis	
AF075581 AF213455	AF075582 AF097667	AF079355	AJ277744	081960	AF075603	AJ298988		1548	AJ011939	X90695	X10469	L36158	AB024437	AF244921	051193	L77080	D42064	D42065	AJ242742	Y19023	X90693	X71593	051191	051194	AB027752	L13654	U51192	X90692	AF007211	AF149277	D90116	L36981	X10462	AF155124	D90115	X10464	L37790	
AAC36699.1 AAG43835.1	AAC36700.1 AAD11430.1	AAC35951.1	CAB90634.1	AAB93832.1	AAC26828.1	CAC09576.1		SEQ ID NO. 1	CAA09881.1	CAA62228.1	CAA71495.1	AAB41812.1	BAA77387.1	AAE63024.1	AAD11483.1	AAB67737.1	BAA07663.1	BAA07664.1	CAB94692.1	CAB67121.1	CAA62226.1	CAA50597.1	AAD11481.1	AAD11484.1	BAA82306.1	AAA65637.1	AAD11482.1	CAA62225.1	AAC98519.1	AAD37427.1	BAA14144.1	AAA98491.1	CAA71488.1	•	BAA14143.1	CAA71490.1	AAB02554.1	

Hordeum vulgare Triticum aestivum Oryza sativa Hordeum vulgare Calystegia sepium Triticum aestivum Zea mays Secale cereale Zea mays Ipomoea batatas Oryza sativa Ipomoea batatas Prunus armeniaca Hordeum vulgare Hordeum vulgare Secale cereale	Manihot esculenta Hevea brasiliensis Manihot esculenta Manihot esculenta Manihot esculenta Hemerocallis hybrid cultivar Limnanthes douglasii Simmondsia chinensis Brassica napus Cucurbita sp. Citrus maxima Daucus carota
AB048949 Y16242 L10346 AJ301645 AF284857 X98504 AF068119 Z11772 Z25871 D12882 AP001539 D01022 AF139501 AF139501 AF139501 AF133514	1551 AJ223281 U40402 Z29091 AJ223506 1552 AF082033 AF047134 U3708 AF09563 U50771 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF333040 Y11007 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499 AF054499
BAB39391.1 CAA76131.1 AAA33899.1 CAC16789.1 AAG44882.1 CAA67128.1 AAD15902.1 CAA77817.1 CAA77817.1 BAA02286.1 BAA02286.1 BAA0828.1 AAD38148.1 AAD38148.1 AAD38148.1	SEQ ID NO. CAA11219.1 AAC49184.1 CAA82334.1 CAA11428.1 SEQ ID NO. AAC34858.1 AAC49186.1 AAC49186.1 AAC49186.1 AAC49186.1 AAC5110.1 AAC25110.1 AAC25110.1 AAC25111.1 AAC25112.1
Medicago sativa Lycopersicon esculentum Glycine max Glycine max Asparagus officinalis Picea abies Populus kitakamiensis Scutellaria baicalensis Spinacia oleracea Gossypium hirsutum Spinacia oleracea Armoracia rusticana Cucurbita pepo Oryza sativa Oryza sativa Ipomoea batatas Medicago sativa	s do las asserta deben
X90693 X71593 X71593 AF145349 AF014502 AB042103 AJ250121 D30653 AB024437 Y10464 AF155124 AF155124 AF155124 AF244924 D90116 Y17192 AP001073 AP001081 AJ242742	AJ401276 AF149277 Y10462 X90694 X91232 X97351 1550 AF026217 D50866 AB004271 AF049098 AJ225087 D21349 D49999 AF061204 L10345 X52321 AF300799 AF3601203 AF3601203 AF3601203 AF361203 AF361203 AF361203
CAA6226.1 CAA50597.1 AAD37375.1 AAB97734.1 BAA94962.1 CAB65334.1 BAA96335.1 BAA7387.1 CAA7680.1 BAA14144.1 CAA76680.1 BAA90365.1 CAB94692.1	CAC21393.1 AAD37427.1 CAA71488.1 CAA62227.1 CAA62615.1 CAA66037.1 trichocarpa SEQ ID NO. 19 AAD04188.1 BAA09462.1 BAA09462.1 BAA09462.1 BAA09462.1 BAA094815.1 BAA094815.1 BAA08741.1 AAC67246.1 SPONTENEUM AAA33898.1 CAA36556.1 AAG25637.1 AAG25637.1 AAG25637.1

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Lycopersicon esculentum Lycopersicon esculentum Pimpinella brachycarpa Nicotiana tabacum Lycopersicon esculentum	Petunia x hybrida Lycopersicon esculentum Nicotiana tabacum Zea mays Zea mays Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Spina radiata Pisum sativum Spinacia oleracea	Zea mays Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Zea mays Triticum aestivum Sorghum bicolor Sorghum bicolor Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Hoctiana tabacum Cucumis sativus Oryza sativus Hordeum vulgare Hordeum vulgare
X99210 X95296 AF161711 AB028650 X99134	Z13997 X98308 U72762 M73028 AF210616 AB028651 AB028649 AB028649 AB028649 AB028649 AB028649 AB028649 AB028649	AF079782 AB042644 AB042643 AC084218 AB011968 AB011967 AF141378 AB011670 Y12464 AF004947 AF004947 AF004947 AF064947 AF062479 X10036 AF062479 X10036 AF062479 X82548 AJ007990 X65606
CAA67600.1 CAA64614.1 AAF22256.1 BAA88222.1 CAA67575.1		AAD20980.1 BAA95705.1 BAA95704.1 AAG48833.1 SEQ ID NO. BAA83689.1 BAA83688.1 AAF22219.1 BAA834675.1 CAA73067.1 AAB62693.1 BAAB62693.1 BAAD23582.1 BAAD23582.1 BAAD23582.1 CAA71142.1 CAA71142.1 CAA71142.1 CAA71142.1 CAA71142.1 CAA71142.1
Beta vulgaris Nicotiana tabacum Solanum tuberosum Oryza sativa Populus x generosa		Solanum tuberosum Nicotiana tabacum Petunia x hybrida Nicotiana tabacum Lillum hybrid division I Oryza sativa Nicotiana tabacum Oryza sativa Nicotiana tabacum Oryza sativum Gossypium hirsutum Gossypium hirsutum Gossypium hirsutum Gossypium hirsutum Gossypium hirsutum Oryza sativa Lycopersicon esculentum Oryza sativa Gossypium hirsutum
X84228 X84226 X75082 AP000367 X84227	1555 AF190303 AF122051 AF122051 AF190301 AF122053 AF122053 AF029160 AB029160 AB029161 X95297 AF122054	AF122054 AB028651 213997 U72762 AB058642 AC037425 AB028650 AB028650 AB028650 AB028650 AB029162 Y11105 AF336285 AF336285 AF336285 AF336285 AF336285 AF336285 AF336285 AF336285 AF336285 AF336282
CAA59010.1 CAA59008.1 CAA52976.1 BAA82390.1 CAA59009.1		AAG08962.1 BAA88223.1 CAA78387.1 AAB41101.1 BAB40790.1 AAG13574.1 BAA88221.1 CAA72185.1 BAA88224.1 BAA88222.1 BAA81733.2 CAA71992.1 AAK19618.1 AAK19618.1 AAK19618.1 AAK19618.1 AAK19618.1 AAK19618.1 AAK19615.1 CAA67575.1 CAA67575.1 CAA67575.1

AAB05457.1 CAA46554.1 AAD00239.1	U55768 X65604 U73938	Oryza sativa Hordeum vulgare Nicotiana tabacum	CAA54045.1 AAB84202.2 CAA47275.1 RAA337150.1	X76535 AF029256 X66737 AB022442	Solanum tuberosum Kosteletzkya virginica Nicotiana plumbaginifolia
BAA13608.1	D88399		BAA08134.1	D45189	Zostera marina
AAG60195.1 BAA19573.1	AC084763 AB002109	Oryza sativa Orvza sativa	CAB69824.1 CAB69823.1	AJ271439 AJ271438	Prunus persica Prunus persica
AAB68962.1	L38855	Glycine max	AAB35314.2	S79323	
AAB58348.1	029095	Triticum aestivum	CAB85495.1	AJ132892	Medicago truncatula
AAF27340.1	AF186020		CAB85494.1	AJ132891	Medicago truncatula
AAA96325.1	M94726	Triticum aestivum	AAA34173.1	M60166	Lycopersicon esculentum
CAA81443.1	226846 A.TO05373	Mesembryanthemum crystallinum Craterosticma nlantacineum	CAC29436.1	AJ310524 M80490	Vicita faba Nicotlana plumbaginifolia
AAF21062.1	AF216527	Dunaliella tertiolecta	AAB60276.1	686600	Zea mays
CAA89202.1	Z49233	Chlamydomonas eugametos	AAA34094.1	M80489	Nicotiana plumbaginifolia
			AAA34052.1	M27888	Nicotiana plumbaginifolia
	1565		CAA59799.1	X85804	Phaseolus vulgaris
BAA90357.1	AP001080	Oryza sativa	AAF98344.1	AF275745	
BAA85438.1	AP000616	Sa	AAD55399.1	AF179442	Lycopersicon esculentum
BAA78746.1	AB023482	Oryza sativa	BAA06629.1	D31843	Oryza sativa
AAG43550.1	AF211532	ian	CAA54046.1	X76536	Solanum tuberosum
BAA96875.1	AB045121	Oryza sativa	CAC29435.1	AJ310523	Vicia faba
			AAD46187.1	AF156683	Nicotiana plumbaginifolia
	1570		CAA52107.1	X73901	Dunaliella bioculata
CAA68234.1	x99972	Brassica oleracea	AAB49042.1	U54690	Dunaliella acidophila
AAG28435.1	AF195028	Glycine max	AAK31799.1	AY029190	Lilium longiflorum
AAG28436.1	AF195029	Glycine max	AAD29712.1	AF140499	Oryza sativa
AAD31896.1	AF145478	Mesembryanthemum crystallinum	AAA81348.1	U38965	Vicia faba
CAA63790.1	X93592	Dunaliella bioculata	AAK32118.1	AF308816	Hordeum vulgare
BAA90510.2	AP001111		AAF97591.1	AF263917	Lycopersicon esculentum
•	AF050495	Lycopersicon esculentum	AAA34099.1	M80491	Nicotiana plumbaginifolia
AAA34138.1	M96324		AAK32119.1	AF308817	Hordeum vulgare
AAD11618.1	AF050496	Lycopersicon esculentum			
AAF73985.1	AF096871	Zea mays		1571	
AAB58910.1	U82966	Oryza sativa	AAA34236.1	M94863	Vigna radiata
AAD46188.1	AF156691	Nicotiana plumbaginifolia	CAA81749.1	227235	Solanum tuberosum
CAA59800.1	X85805	Zea mays	AAF22108.1	AF119410	Lupinus albus
AAB17186.1	U72148	Lycopersicon esculentum	AAF22112.1	AF119414	Lupinus albus
BAA01058.1		Oryza sativa	BAA76388.1	AB007639	Pyrus pyrifolia
AAD46186.1	AF156679	Nicotiana plumbaginifolia	CAB01401.1	277854	Phalaenopsis sp.
AAB41898.1	U84891	Mesembryanthemum crystallinum	CAB86187.1	AJ277161	Carica papaya

	367	•
Trifolium repens Trifolium repens Avena sativa Brassica napus Manihot esculenta Brassica napus Brassica nigra Oryza sativa Cicer arietinum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum		Lycopersicon esculentum Prunus dulcis Hordeum vulgare Oryza sativa Brassica napus Nepenthes alata Lotus japonicus Cucumis sativus Glycine max Glycine max Glycine max Prunus dulcis
X56733 X56734 X78433 Z21977 U95298 X82577 U72154 U28047 AJ005950 AB026990 AB026990 AB02693 AF096299	AE193802 AB041520 AB028022 AF204925 AF121354 AF193770 AF204926 AF193771	AF016713 AF213936 AF023472 AF140606 AJ278966 AF000392 Z69370 AB052785 AB052788 AB052784 AB154930
CAA40057.1 CAA40058.1 CAA79989.2 AAB71381.1 CAA57913.1 AAB38784.1 AAA84906.1 CAC08209.1 SEQ ID NO. AAD16138.1 BAA86031.1 BAA86031.1 BAA82107.1 AAD16139.1		
Doritaenopsis sp. Doritaenopsis sp. Actinidia deliciosa Solanum tuberosum Musa acuminata Solanum tuberosum Musa acuminata Prunus persica Musa acuminata Populus euramericana Malus x domestica Vigna radiata Malus sylvestris Vigna radiata Lycopersicon esculentum Petunia x hybrida Cucurbita maxima	Pyrus communis Musa acuminata Pinus contorta Dalbergia cochinchinensis Polygonum tinctorium Prunus avium Costus speciosus Prunus serotina	Cucurbita pepo Secale cereale Manihot esculenta Rauvolfia serpentina Hordeum vulgare Sorghum bicolor Manihot esculenta Avena sativa Zea mays
L07883 L07882 AB007449 Z27233 AF109927 Z27234 AF080258 AB044662 AB129508 AB010102 AB010102 AB010102 AB0103594 AB0103394 AB000679 L34171 AF049711	X87112 1572 AF321287 AF072736 AF163097 AB003089 U39228 D83177 AF221526	AF170087 AF293849 S35175 AF149311 L41869 U33817 X94986 AF082991 U44087 U44087 U25157 X74217
AAB05849.1 AAB05848.1 BAA31137.1 CAA81747.1 AAD28181.1 CAA81748.1 AAD22099.2 BAA96743.1 AAD22099.2 BAA9600.1 BAA35057.1 BAA3859.1 AAA03472.1 AAA03472.1 BAA19161.1 AAA087879.1	н ·нннннн	AAG25897.1 AAG00614.1 AAB22162.1 AAF03675.1 AAAG49177.1 CAA64442.1 AAD02839.1 AAD02839.1 AAD10503.1 AAB03266.1 AAB63266.1

		366	
Glycine max Fagus sylvatica Arachis hypogaea Oryza sativa Nicotiana tabacum Brassica napus Nicotiana tabacum	Lophopyrum elongatum Nicotiana tabacum Lophopyrum elongatum Brassica napus Zea mays Rosa hybrid cultivar Glycine max Oryza sativa Glycine max Oryza sativa Oryza sativa Brassica napus	Glycine max Oryza sativa Glycine max Glycine max Glycine max Brassica napus Brassica napus Brassica napus Brassica napus	Brassica napus Fragaria x ananassa Catharanthus roseus Nicotiana tabacum Nicotiana tabacum Daucus carota Nicotiana tabacum Phaseolus vulgaris Glycine max Nicotiana tabacum
M67449 AJ298992 AY027437 AF172282 AF142596 AJ010091 D31737	AF339747 D26601 AF131222 AY028699 U67422 AF271206 AF197946 AF238477 AF244889 00069 AF164020 AJ010093	AF244888 X89226 AF197947 AF244890 1578 AD003516 AJ005931 AJ005931	1579 S68113 AF026382 X85206 AB041519 AB037109 AB037109 AB035125 U34333 AF248055
AAR11734.1 AAK11734.1 AAF34436.1 AAF66615.1 CAA08995.1 BAA06538.1	AAK11674.1 BAAC5648.1 AAF43496.1 AAK21965.1 AAE76189.1 AAF59905.1 AAF78021.1 AAF91323.1 CAB51834.1 AAD46916.1	AAF91322.1 CAA61510.1 AAF59906.1 AAF91324.1 SEQ ID NO. BAA24448.1 CAA06770.1 CAA06773.1	SEQ ID NO. AAC60566.1 AAD01800.1 CAA59472.1 BAB16431.1 BAA99575.1 BAA99575.1 BAAC49369.1 AAC78903.1 BAA13150.1
Nicotiana tabacum Petunia x hybrida Citrus unshiu Verbena x hybrida Perilla frutescens Brassica napus Perilla frutescens	Forsythia x intermedia Gentiana triflora Lycopersicon esculentum Sorghum bicolor Petunia x hybrida Vitis vinifera	Scutellaria baicalensis Vitis vinifera Vitis vinifera Ipomoea batatas Perilla frutescens Vitis labrusca x Vitis vinifera Nicotiana tabacum Vitis vinifera Vitis vinifera Zea mays	Ipomoea purpurea Manihot esculenta Oryza sativa Hordeum vulgare Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Cycopersicon con esculentum Cycopersicon esculentum Cycopersicon esculentum
AF190634 AB027455 AB033758 AB013598 AB013596 AF287143 AB013597	AF127218 D85186 X85138 AF199453 AB027454 AF000372 AB047090 AF000371 AB047095 AB047093 AB047093	AB031274 AB047098 AB047096 AB038248 AB047091 U32643 AE346432 AB047097	AF028237 X77464 1577 AF305911 AF305912 AJ005077 AF096250 AF110519 AF110518 AY029067
AAF61647.1 BAA89009.1 BAA93039.1 BAA36423.1 BAA36421.1 AAF98390.1 BAA36422.1	AAD21086.1 BAA12737.1 CAA59450.1 AAF17077.1 BAA89008.1 AAB81683.1 BAB41017.1 BAB41022.1 BAB41020.1 BAB41020.1	BAA83484.1 BAB41025.1 BAB41023.1 BAA90787.1 BAA19659.1 BAB41018.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB31855.1 CAA31855.1	AAB86473.1 CAA54614.1 SEQ ID NO. 1 AAG31141.1 AAG31142.1 CAA06334.1 AAD10057.1 AAD10056.1 AAK30005.1

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Glycine max	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Lycopersicon esculentum	Lycopersicon esculentum	Solanum tuberosum	Phaseolus vulgaris	Pisum sativum	Glycine max	Pisum sativum	Pisum sativum	Glycine max	Glycine max	Pisum sativum	Glycine max	Glycine max	Glycine max		aethiopica	Oryza sativa	Pisum sativum	Phaseolus vulgaris	Phaseolus vulgaris	Glycine max	Glycine max	Phaseolus vulgaris			Armoracia rusticana				Capsella bursa-pastoris		•	Gossypium hirsutum	Petunia x hybrida	Oryza sativa	Antirrhinum majus	Gossypium hirsutum
X67304	AF019614	X95513	573865	009026	U37839	X96405	AF204210	X78581	004526	X17061	X78580	D13949	J03211	U84198	050081	X56139	U26457	AF234983	AF283894	AF095895	AJ293015	X63525	076687	U36191	U04785	x63521		1589	AJ237582	AJ132906	AJ132905	AJ132903	AJ237584		1590	AF336283	213996	X11415	AJ006292	AF336286
CAA47717.1	AAB81595.1	CAA64766.1	AAB31252.1	AAA53184.1	AAB65766.1	CAA65268.1	AAF15296.2	CAA55319.1	AAA03728.1	CAA34906.1	CAA55318.1	BAA03042.1	AAA33987.1	AAB71759.1	AAB41272.1	CAA39604.1	AAA96817.1	AAG42354.1	AAG18376.1	AAD39093.1	CAC04380.1	CAA45088.1	AAB18970.2	AAC49159.1	AAA03726.1	CAA45086.1			CAB39890.1	CAB39158.1	CAB39159.1	CAB39172.1	CAB39892.1			AAK19616.1	CAA78386.1	CAA72218.1	CAB43399.1	AAK19619.1
Nicotiana tabacum		Triticum aestivum	•		Ivcopersion esculentum	Modification and the same	Chechte reflexa	3505404 3050550		Lycopersicon esculentum	,		Orvza sativa	Sat			Lycopersicon esculentum		Lycopersicon esculentum			Solanum tuberosum	Lycopersicon esculentum		Hordeum vulgare	Prunus dulcis	Lycopersicon esculentum	Cucumis sativus	Solanum tuberosum	Solanum tuberosum	Cucumis sativus		-	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Glycine max	Glycine max
167397	X60432	1173714	X82413	X57076	A3/0/0	しているのではなっている。	1202041	CC / 0.27	1583	62669X		1584	AP000837	AP000837		1585	AF123265	172489	AF123266		1588	X96406	037840	014000	056406	AJ404331	AY008278	036339	060200	X95512	AJ271161	X84040	060202	X79107	060201	X18548	AF039651	AF019613	J02795	050075
1 33101440	1.0000V440	1.6062544		•	CAM40301.1	CAA43000.1	AADU3487.1		CIN OF COR		T	ON OT ORS		1.0010044 1 2010844	1.0010000	SEC TO NO.		ABR49425.1	2.03F0F0A4	7	ON OT OBS		AAR65767.1	RAA03102.1	1 1201212	CAB94852.1	AAG21691.1	AAA79186.1	AAB67858.1	CAA64765.1	CAB83038.1	CAA58859.1	AAB67865.1	CAA55724.1	AAB67860.1	CAB65460.1	AAD04258.1	AAB81594.1	AAA33986.1	AAB67732.1

CAA50224.1	X70879	Hordeum vulgare	AAD11617.1	AF050495	Lycopersicon esculentum
CAA50222.1	77087X	Hordeum vulgare	AAA34138.1	м96324	Lycopersicon esculentum
BAA23337.1	D88617	Oryza sativa	AAD11618.1	AF050496	Lycopersicon esculentum
CAA64614.1	X95296	Lycopersicon esculentum	BAA90510.2	AP001111	Oryza sativa
CAA50221.1	X70876	Hordeum vulgare	AAF73985.1	AE096871	Zea mays
AAK19611.1	AF336278	Gossypium hirsutum	AAB58910.1	U82966	Oryza sativa.
BAA81732.1	AB029161	Glycine max	CAB69823.1	AJ271438	Prunus persica
BAA81731.1	AB029160	Glycine max	CAC29436.1	AJ310524	Vicia faba
BAA81730.1	AB029159	Glycine max	AAD46188.1	AF156691	Nicotiana plumbaginifolia
CAA72185.1	X11350	Oryza sativa	AAD46186.1	AF156679	Nicotiana plumbaginifolia
AAG13574.1	AC037425	Oryza sativa	CAA47275.1	X66737	Nicotiana plumbaginifolia
BAA81733.2	AB029162	Glycine max	AAB17186.1	U72148	Lycopersicon esculentum
BAA88221.1	AB028649	Nicotiana tabacum	AAD29712.1	AF140499	Oryza sativa
CAA78387.1	213997	Petunia x hybrida	CAA59800.1	X85805	Zea mays
BAA88224.1	AB028652	Nicotiana tabacum	AAB35314.2	579323	Vicia faba
BAA23338.1	D88618	Oryza sativa	AAA34173.1	M60166	Lycopersicon esculentum
AAK19617.1	AF336284	Gossypium hirsutum	CAA54045.1	X76535	Solanum tuberosum
CAA72217.1	Y11414	Oryza sativa	AAB60276.1	009989	Zea mays
CAA67600.1	X99210	Lycopersicon esculentum	AAB84202.2	AF029256	Kosteletzkya virginica
AAK19615.1	AF336282	Gossypium hirsutum	AAA34098.1	M80490	Nicotiana plumbaginifolia
BAA81736.1	AB029165	Glycine max	CAA59799.1	X85804	Phaseolus vulgaris
BAA88222.1	AB028650	Nicotiana tabacum	AAB41898.1	U84891	Mesembryanthenum crystallinum
AAB41101.1	U72762	Nicotiana tabacum	AAD55399.1	AF179442	Lycopersicon esculentum
BAA88223.1	AB028651	Nicotiana tabacum	AAF98344.1	AF275745	Lycopersicon esculentum
AAK19618.1	AF336285	Gossypium hirsutum	CAA54046.1	X76536	Solanum tuberosum
CAA72186.1	X11351	Oryza sativa	AAA34052.1	M27888	Nicotiana plumbaginifolia
CAA66952.1	x98308	Lycopersicon esculentum	CAB69824.1	AJ271439	Prunus persica
AAF22256.1	AF161711	Pimpinella brachycarpa	AAA34094.1	M80489	Nicotiana plumbaginifolia
CAA64615.1	X95297	Lycopersicon esculentum	BAA06629.1	D31843	Oryza sativa
CAA67575.1	X99134	Lycopersicon esculentum	AAB49042.1	054690	Dunaliella acidophila
AAA19821.1	L19495	Zea mays	AAK31799.1	AY029190	Lilium longiflorum
CAA65525.1	X96749	Oryza sativa	CAC29435.1	AJ310523	Vicia faba
AAA33500.1	M73028	Zea mays	BAA37150.1	AB022442	Vicia faba
BAA23339.1	D88619	Oryza sativa	BAA01058.1	D10207	Oryza sativa
			CAB85494.1	AJ132891	Medicago truncatula
	1594	-	CAB85495.1	AJ132892	Medicago truncatula
AAG28435.1	AF195028	Glycine max	AAD46187.1	AF156683	Nicotiana plumbaginifolia
AAG28436.1	N	Glycine max	BAA08134.1	D45189	Zostera marina
CAA68234.1	X99972	Brassica oleracea	CAA52107.1	X73901	Dunaliella bioculata
AAD31896.1	AF145478		AAA34099.1	M80491	Nicotiana plumbaginifolia
CAA63790.1	X93592	Dunaliella bioculata	AAA20601.1	008985	Zea mays

	Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Populus kitakamiensis	Armoracia rusticana Asparagus officinalis	Nicotiana tabacum Populus balsamifera subsp.	oryza sativa Oryza sativa Scutellaria baicalensis	Triticum aestivum Populus nigra Populus kitakamiensis	Armoracia rusticana 6 Linum usitatissimum 1	Populus kitakamiensis Zea mays Medicago sativa Orvza sativa	Armoracia rusticana Spirodela polyrrhiza Medicago sativa Populus balsamifera subsp.	Medicago sativa	Lycopersicon esculentum Solanum tuberosum	Zea mays Lycopersicon esculentum Pisum sativum Hordeum vulgare	
AP001073 U51191 U51192 D14997	X19023 X71593 J02979 D30653	X57564 AB042103	D11396 X97349	AJ401276 D49551 AB024437	X85228 D83225	D90116 L07554	D30652 AJ401274 L36157	AF001393 D90115 Z22920 X90692 X97350	X90693	1597 294180 226949	AF069911 AF209924 U51918 AJ222787	
BAA89584.1 AAD11481.1 AAD11482.1 BAA03644.1	CAB67121.1 CAA50597.1 AAA34108.1	CAA40796.1 BAA94962.1	BAA01992.1 CAA66035.1 trichocarpa	CAC21393.1 BAA08499.1 BAA77387 1	CAA59485.1 BAA11853.1	BAR14144.1 BAB47602.1	BAA06334.1 CAC21391.1 AAB41811.1	BAA92500.1 BAA14143.1 CAA80502.1 CAA6225.1 CAA66036.1	trichocarpa CAA62226.1	SEQ ID NO. CAB08111.1	AAC72195.1 AF AAC43499.1 AF AAA97411.1 US CAA10992.1 AJ	
Zea mays Lycopersicon esculentum Vicia faba	Mesembryanthemum crystallinum Nicotiana tabacum	Fagus sylvatica Lotus japonicus Nicotiana tabacum	Fagus sylvatica Medicago sativa	E	Mesembryanthemum crystaiiinum Mesembryanthemum crystallinum Mesembryanthemum crystallinum	Fagus sylvatica Mesembryanthemum crystallinum	Zea mays. Oryza sativa Fagus sylvatica	Arachis hypogaea Lycopersicon esculentum Nicotiana tabacum	Stylosanthes namificated phaseolus vulgaris Spinacia oleracea	Populus balsamifera subsp.	Lycopersicon esculentum Spinacia oleracea Phaseolus vulgaris Nicotiana tabacum Nicotiana tabacum Ipomoea batatas	Oryza sativa
UO8984 AF263917 U38965	1595 AF075579 AJ277086	AJ277743 AF092431	AJ298987 Y11607	AF032455 AF213455 AF075580	AF075582 AF075581 AF097667	AJ277744 AF079355	U81960 AF075603 AJ298988	1596 M37637 X94943 AB027753	L77080 AF149279 Y10468	AF145349 X97351		AP001081
AAA20600.1 AAF97591.1 AAA81348.1	SEQ ID NO. 1 AAC36697.1 CAC10358.1	CAB90633.1 AAD17804.1	CAC10359.1 CAC09575.1 CAA72341.1	AAD1/805.1 AAG43835.1 AAC36698.1	AAC36700.1 AAC36699.1	CAB90634.1 AAC35951.1	AAB93832.1 AAC26828.1 CAC09576.1		AAB67737.1 AAD37429.2 CAA71494.1	AAD37375.1 CAA66037.1 trichocarpa	AAA65637.1 AAF63024.1 AAD37430.1 BAA07664.1 BAA07663.1 CAB94692.1	BAA90365.1

392	
Lycopersicon esculentum Gossypium hirsutum Nicotiana tabacum Gossypium hirsutum Fragaria x ananassa Nicotiana tabacum Solanum tuberosum Lavatera thuringiaca Zea mays Medicago sativa Medicago truncatula Zea mays Ceratopteris richardii Medicago sativa Oryza sativa Medicago truncatula Oryza sativa Medicago truncatula	
AF079232 U73746 AF113545 U73747 U19941 Y14972 Y17502 AF079231 X14973 X17503 AJ401032 AJ401032 AJ401032 AF006197 X98244 X74947 X175036 X98244 X74947 X15036 X98245 AF308589 X11348 AF308589 AF308589 AF308589 AF308589 AF308589 AF308589 AF308589 AF308589 AF308589 AF24455 AF254124 AB028186 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187 AB028187	AY007611 AY007515 AY007515 AY007601 AY007603 AY007604
	AAG37440.1 AAG37451.1 AAG15418.1 AAG15412.1 AAG37441.1 AAG37443.1 AAG37444.1
Cicer arietinum Asparagus officinalis Vigna radiata Cicer arietinum Mangifera indica Carica papaya Lycopersicon esculentum Cycopersicon esculentum Lycopersicon Lycopersicon esculentum Lycopersicon Lycopersi	Fragaría x ananassa Gossypium hirsutum Cicer arietinum Capsicum annuum Capsicum annuum
AJO05042 X77319 AF229795 AJO12687 AF004812 AF004786 AF012797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO12797 AJO1279 AJO06771 AJO0771 AJ	1603 AF188832 U89609 AJ005347 X93308 AJ130956 AJ130829
CAA06309.1 CAA54525.1 AAF67342.1 CAA10128.1 AAC77377.1 AAC77377.1 AAC7651.1 CAA10173.1 CAA10173.1 CAA09457.1 CAA09457.1 CAA09457.1 CAA07236.1 CAA07236.1 CAA06310.1 AAC28739.1 AAC28739.1 AAC8739.1 AAC86952.1 CAA06310.1 AAC86952.1 CAA50035.1 CAA50035.1 CAA66952.1 CAA50035.1 CAA50035.1 CAA50035.1 CAA50035.1 CAA50035.1	

		393	pekinensis	
Hordeum vulgare Pistacia vera Hordeum vulgare Hordeum vulgare Hordeum vulgare Fisum sativum	Hordeum vulgare Pisum sativum Elaeis guineensis Pisum sativum Hordeum vulgare Hordeum vulgare Pisum sativum Hordeum vulgare Pisum sativum Hordeum vulgare Hordeum vulgare	Hordeum vulgare Phaseolus vulgaris Vicia sativa Vicia sativa Triticum aestivum	Brassica rapa subsp. Catharanthus roseus Glycine max Glycine max Pisum sativum Pisum sativum	Helianthus tuberosus Helianthus tuberosus Glycyrrhiza echinata Glycyrrhiza echinata Catharanthus roseus Lotus japonicus
AF043091 Y07600 AF181460 AF043090 AF043095 X15287 X63061	AF043092 X63062 AF236067 X63063 AF043086 AF181461 AF181454 U91970 X72748 AF181457 X15286	AF043089 1612 U77935 1614 AF030260 AF0302917 AF123609	AY029178 AJ238402 AF022457 AF022459 Z49263 AF175278	AJ000478 AJ000477 AB001380 AB022733 L19074 AB025016
AAD02257.1 CAC34554.1 AAF01698.1 AAD02256.1 AAD02261.1 CAA33361.1 CAA4787.1	AAD02258.1 CAA44788.1 AAF60172.1 CAA44789.1 AAD02252.1 AAF01699.1 AAF01692.1 AAB51381.1 CAA51278.1 AAF01695.1 CAA33360.1		AAK31592.1 CAB41474.1 AAB94586.1 AAB94588.1 CAA89260.1 AAG09208.1	AAC45180.2 CAA04117.1 CAA04116.1 BAA22423.1 BAA74466.1 AAA17732.1 BAA93634.1
Glycine canescens Glycine tomentella Glycine tomentella Glycine tomentella Glycine tomentella Glycine tomentella	Glycine tomentella Glycine tabacina Glycine tomentella Glycine tomentella Glycine soja Glycine canescens Glycine tabacina Glycine tomentella Glycine tomentella Glycine tomentella Glycine tomentella Glycine tomentella	Phaseolus vulgaris Gossypium hirsutum Glycine tomentella Glycine tomentella Glycine tomentella Glycine tomentella Picea glauca Glycine max	Lophopyrum elongatum Prunus persica Hordeum vulgare Hordeum vulgare	Hordeum vulgare Prunus persica Prunus persica Prunus dulcis Lophopyrum elongatum Lophopyrum elongatum
AX007598 AX007511 AX007608 AF287476 AX007606 AX007605	AX007507 AX007602 AX007607 AX007514 U38246 AX007509 AX007609 AX007610 AX007611	X13202 X13202 AX007517 AY007518 AY007516 L47607 AF004810	X64145 1609 AF031247 AJ271620 AF043096 M95810	AF181455 U62486 U34809 AF172263 AF031249 AF031250 AF181456
AAG37438.1 AAG15416.1 AAG37448.1 AAF91486.1 AAG37446.1 AAG37445.1	AAG15413.1 AAG37442.1 AAG37447.1 AAG15417.1 AAG37439.1 AAG37449.1 AAG37449.1 AAG37450.1 AAG37450.1 AAG37453.1	CAA42221.1 AAC49862.1 CAA31590.1 AAG12980.1 AAG12981.1 AAG12982.1 AAG12979.1 AABO1552.1 AABO1541.1	a	AAF01693.1 AAC49658.1 AAC49657.1 AAD50291.1 AAC05923.1 AAC05924.1

พกร	wne	394	sativa
Zea mays Zea mays Crac sativa Craterostigma plantagineum Oryza sativa Saccharum officinarum Hordeum vulgare Triticum aestivum Citrus unshiu	Citrus unsniu Pisum sativum Daucus carota Craterostigma plantagineum Beta vulgaris Hordeum vulgare Petroselinum crispum Nicotiana tabacum	Nicotiana tabacum Solanum tuberosum Dunaliella bioculata Solanum tuberosum Spinacia oleracea Spinacia oleracea Nicotiana tabacum	ubsp. pum pum
X02382 X02400 X64770 AJ132000 Z15028 AF263384 X65871 AJ001117 AB022091	AB025778 AJ001071 Y16091 AJ131999 X81974 X66728 1621 AF012861	X99405 AJ132346 AJ132346 X83923 AJ000184 AJ001772 AJ001772	AFO97663 U18238 X74421 AF012862 AJ001770 AB029454 AB029456 AF260736 AJ279688 AB011441 AJ004900
CAA2629.1 CAA46017.1 CAB38022.1 CAB7877.1 AAF85966.1 CAA46701.1 CAA04543.1 BAA88904.1	BAA88981.1 CAA04512.1 CAA76057.1 CAB38021.1 CAA57499.1 CAA47264.1 SEQ ID NO. 3 AAB69317.1	CAN67782.1 CAB52708.1 CAB52685.1 CAA58775.1 CAA03941.1 CAA03939.1 CAA04994.1	CAACCATO AABUL 1426.1 AAB41552.1 CAA52442.1 AAB69318.1 AAB69319.1 CAAO4992.1 CAAO4992.1 BAA97662.1 BAA97662.1 BAA97662.1 BAA97663.1 BAA97663.1 BAA97663.1
Capsicum annuum Cicer arietinum Solanum melongena Torenia hybrida Glycyrrhiza echinata Zea mays Zea mays Coptis japonica	Oryza sativa Citrus unshiu Lycopersicon esculentum Citrus unshiu Gossypium hirsutum Vicia faba Lycopersicon esculentum Solanum tuberosum	Lycopersicon esculentum Medicago truncatula Medicago sativa Medicago truncatula Tulipa gesneriana Solanum tuberosum Alnus glutinosa Zea mays	Tulipa gesneriana Oryza sativa Hordeum vulgare Hordeum vulgare Daucus carota Daucus carota Zea mays Pyrus pyrifolia Triticum aestivum Glycine max Vigna radiata Pisum sativum Pisum sativum Chenopodium rubrum
AF122821 AJ239051 X71657 AB028152 AB023636 X11404 X81829 AB025030	1620 X59046 AB029401 L19762 AB022092 U73588 X69773 AJ011535	AJO11319 AJ131943 AF049487 AJ131964 X96939 U24087 X92378 L22296	X96938 103366 X15802 X69931 Y16090 X75332 L33244 AB045710 AJ00153 AF030231 D10266 AJ012080 AF079851 AJ311496
AAF27282.1 CAB43505.1 CAA50648.1 BAA84072.1 BAA76380.1 CAA72208.1 CAA57423.1		CAA09593.1 CAB40794.1 AAC17867.1 CAB40795.1 CAA65640.1 AAA97571.1 CAA63122.1	CAA65639.1 AAC41682.1 CAA75793.1 CAA76056.1 CAA53081.1 AAA33515.1 BAB20799.1 CAA03935.1 AAC39323.1 BAAC3910.1 CAA09910.1 CAA09910.1 CAA09910.1 CAA09910.1

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Beta vulgaris Beta vulgaris	Plantago major Nicotiana tabacum	Lycopersicon esculentum	Lycopersicon esculentum	Ricinus communis	Solanum tuberosum	Daucus carota	Daucus carota	Daucus carota	Vitis vinifera	Hordeum vulgare	Ricinus communis	Oryza sativa	subsp.	Lycopersicon esculentum	Zea mays	Hordeum vulgare	Betula pendula	Cicer arietinum			Nicotiana tabacum	Volvox carteri f. nagariensis	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii			turgidum			Triticum turgidum subsp.	Triticum turgidum subsp.	Oryza sativa	Medicago sativa	Cucumis sativus			Oryza sativa	Nicotiana tabacum
X83850 U64967	X84379 AF149981	X82275	AF176950	AJ224961	AF237780	X16766	X16767	AJ303198	AF182445	AJ272308	AJ310643	D87819	AF280050	AF166498	AB008464	AJ272309	AF168771	AB025006		1625	Y11209	AF110784	AE027727	AF036939	U41385	AF131223	AJ277378	AJ277380	U11496	AJ277379	AJ277377	AB039278	Z11499	AB047268		1626	AP001129	X61146
CAA58730.1 AAD53000.1	CAA59113.1 AAD34610.1	CAA57726.1	AAG09270.1	CAA12256.1	AAG25923.1	CAA76367.1	CAA76368.1	CAC19688.1	AAD55269.1	CAB75881.1	CAC33492.1	BAA24071.1	AAF90181.1	AAG12987.1	BAA83501.1	CAB75882.1	AhD45932.1	BAA76434.1		SEQ ID NO.	CAA72092.1	AAD55566.1	AAC49896.1	AAD02069.1	AAB05641.1	AAD28260.1	·CAC21229.1	CAC21231.1	AAA19660.1	CAC21230.1	CAC21228.1	BAA92322.1	CAA77575.1	BAB18780.1			BAA90610.1	CAA43454.1
	Brassica napus	Cucurbita sp.	,	Zea mays		Zea mays			Solanum tuberosum	Chloroplast Pisum sativum	· ·	Brassica nabus	Secale cereale	Brassica napus	Brassica napus	Canavalia lineata	Avicennia marina	Solanum tuberosum	Pseudotsuga menziesii	Glycine max			Ricinus communis	Apium graveolens	Apium graveolens	Daucus carota	Daucus carota	Daucus carota	Apium graveolens	Spinacia oleracea	Emphorbia esula		ď	Plantago major	Pisum sativum	Vicia faba	Alonsoa meridionalis	Solanum tuberosum
1623	227165	X70867	212114	1,21007	1,21006	1.21008	212115	2,11546	1146136	021139	AP001389	00505M	268903	M35599	22722	AF030515	AB049590	046137	249766	A.T012318		1624	231561	AF167416	AE167415	AB036758	Y16768	AJ303199	AF063400	x67125	AF242307	X82276	AF191024	X75764	AF109922	293774	AF191025	X69165
SEO ID NO. 1	٦.	CAA50218.1	CAA3021.1	1.05755444	1 65755444	1 1345444	1.10197447	Cab77645 1	1 1040 Laga	1 32555444	•	1.627.26.44	CAP93139.1	1.97975444	1 35718447	PACE 2001	1.20000111 1.20000111	AAB39828.1	CAA89836.1	ר פאפסטעער	•	SEO TO NO.		1 100530111	AAD45390.1	BB89458 1	1.69697447	T 6889 1747	AACQQ332 1	1.305000000 L 9050440	1.500,500,000	Can57727 1	DAF04294 1	CAA53390.1	AAD41024.1	CAB07811.1	AAF04295.1	CAA48915.1

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			CAC35328.1	AJ310153	Linum usitatissimum
	1627		CAC35325.1	AJ310150	Linum usitatissimum
AAF74566.1	AF215852	Nicotiana tabacum	CAC35332.1	AJ310157	Linum usitatissimum
AAF74567.1	AF215853	Solanum tuberosum	CAC35336.1	AJ310161	Linum usitatissimum
AAF74568.1	AF215854	Zea mays	CAC35338.1	AJ310163	Linum usitatissimum
AAF74565.1	AF215851	Spinacia oleracea	CAC35321.1	AJ310150	Linum usitatissimum
			CAC35326.1	AJ310151	Linum usitatissimum
	1630		CAC35339.1	AJ310164	Linum usitatissimum
CAA08798.1	AJ009720	Solanum tuberosum	CAC35329.1	AJ310154	Linum usitatissimum
CAA08797.1	AJ009719	Solanum tuberosum	CAC35323.1	AJ310150	Linum usitatissimum
AAG43546.1	AF211528	Nicotiana tabacum	CAC35331.1	AJ310156	Linum usitatissimum
AAG09951.1	AF175388	Glycine max	CAC35327.1	AJ310152	Linum usitatissimum
AAK28808.1	AF310961	Linum usitatissimum	AAF61452.1	AF139523	Tagetes erecta
AAK28805.1	AF310960	Linum usitatissimum	AAK28811.1	AF310966	Linum usitatissimum
AAK28803.1	AF310958	Linum usitatissimum			
AAA50763.1	U15605	Nicotiana glutinosa	SEQ ID NO.	1631	
AAK28809.1	AF310962	Linum usitatissimum	AAF20002.1	AF213936	Prunus dulcis
AAK28804.1	AF310959	Linum usitatissimum	AAD01600.1	AF016713	Lycopersicon esculentum
AAG09954.1	AF175399	Glycine max	AAC32034.1	AF023472	Hordeum vulgare
AAD25966.1	AF093639	Linum usitatissimum	AAF07875.1	AF140606	Oryza sativa
AAD25974.1	AF093647	Linum usitatissimum	CAC07206.1	AJ278966	Brassica napus
AAA91021.1	U27081	Linum usitatissimum	AAD16016.1	AE080545	Nepenthes alata
AAD25968.1	AF093641	Linum usitatissimum	AAB69642.1	AF000392	Lotus japonicus
AAA91022.1	U27081	Linum usitatissimum	CAA93316.1	Z69370	Cucumis sativus
AAD25969.1	AF093642	Linum usitatissimum	BAB19760.1	AB052788	Glycine max
AAG01051.1	AF175394	Glycine max	BAB19757.1	AB052785	Glycine max
AAD25975.1	AF093648	Linum usitatissimum	BAB19756.1	AB052784	Glycine max
AAG01052.1	AF175395	Glycine max	AAD42860.1	AF154930	Prunus dulcis
AAD25965.1	AF093638	Linum usitatissimum			
AAD25976.1	AF093649	Linum usitatissimum		1632	
AAD25972.1	AF093645	Linum usitatissimum	AAD43561.1	AF155124	Gossypium hirsutum
AAD25971.1	AE093644	Linum usitatissimum	AAF63027.1	AF244924	Spinacia oleracea
AAD25970.1	AF093643	Linum usitatissimum	BAA92500.1	AP001383	Oryza sativa
AAD25967.1	AF093640	Linum usitatissimum	BAA94962.1	AB042103	Asparagus officinalis
AAD25973.1	AE093646	Linum usitatissimum	AAB97734.1	AF014502	Glycine max
•	AF175396	Glycine max	CAA59487.1	X85230	Triticum aestivum
•	AJ310155		AAC05277.1	AF049881	Linum usitatissimum
CAC35337.1	AJ310162	Linum usitatissimum	BAA08499.1	D49551	Oryza sativa
•	U73916	Linum usitatissimum	AAF63026.1	AF244923	Spinacia oleracea
•	AJ310159	Linum usitatissimum	AAD37430.1	AF149280	Phaseolus vulgaris
CAC35333.1	AJ310158	Linum usitatissimum .	BAA11853.1	D83225	Populus nigra

	Physcomitrella patens Physcomitrella patens Physcomitrella patens Daucus carota Physcomitrella patens Daucus carota Oavza sativa Pimpinella brachycarpa Pimpinella brachycarpa Pimpinella brachycarpa Craterostigma plantagineum Oryza sativa
AF244693 AF244694 AF244694 AF048978 AF018924 AF118925 AF243371 AJ000923 AF244690 Y10820 AF244690 Y10820 AF244690 AF145730 AF18926 AF18926 AF18926 AF18427 AF184277 AB028073 AF184277 AB028078 Y17306 AF184277 AB028078 AF184277 AB028078 AF184277 AB028078 AF184277 AB028078 AF184277 AB028073 AF184277 AB028078 AF184277 AB028078 AF184277 AB028078 AF184277 AB028078	AB028076 AB028079 AB028077 D26576 AB028080 D26574 D26573 AF145729 X94449 X94375 X95193 AB028075 AJ005833 AF145726
AAG34836.1 AAG34837.1 AAG34800.1 AAC32118.1 AAF22517.1 AAF22518.1 AAG34806.1 CAA04391.1 AAG3483.1 CAA71784.1 AAG34847.1 AAF22519.1 AAF22519.1 AAF22519.1 AAF01764.2 BAA93466.1 CAB67118.1 AAF01765.1 AAF01765.1 BAA93460.1 BAAD37697.1 BAAD37697.1	BAA93464.1 BAA93467.1 BAA93465.1 BAA05625.1 BAA05623.1 BAA05622.1 AAD37698.1 CAA64221.1 CAA64491.1 BAA93463.1 CAA64491.1 BAA93463.1
Fagus sylvatica Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Fagus sylvatica Mesembryanthemum crystallinum Lotus japonicus Medicago sativa Lotus japonicus Mesembryanthemum crystallinum Resembryanthemum crystallinum Resembryanthemum crystallinum Resembryanthemum crystallinum Zea mays Mesembryanthemum crystallinum Zea mays Gesmbryanthemum crystallinum Gesembryanthemum crystallinum Gesembryanthemum crystallinum Cea mays Mesembryanthemum crystallinum Cea mays Gesembryanthemum crystallinum Cea mays Mesembryanthemum crystallinum Cea mays Glycine max	Glycine max Glycine max Glycine max Glycine max Glycine max Zea mays Solanum tuberosum
AJ277743 AJ277086 AJ277087 AJ298987 AF092431 Y11607 AF092432 AF075580 AF075581 AF075581 AF075581 AF075581 AF075582 AF075583 AF277744 AF075582 AF277744 AF07583 AF27363 AF243363 AF243363 AF243363 AF243363 AF243363 AF243363	AF243362 AF243366 AF243374 AF243373 AF244701 AF244689 AF244689 AF244689 AF244706 AF244706 AF244706 AF244706 AJ010449
	AAG34801.1 AAG34804.1 AAG34809.1 AAG34809.1 AAG34810.1 AAG34810.1 AAG34811.1 AAG34805.1 AAG34805.1 AAG34802.1 AAG34802.1 AAG34829.1 AAG34829.1 AAG34829.1 AAG34829.1

Nicotiana plumbaginifolia Oryza sativa Solanum tuberosum Hordeum vulgare Hordeum vulgare	Oryza sativa Nicotiana tabacum	Hevea brasiliensis Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Nicotiana tabacum Phaseolus vulgaris Nicotiana tabacum Vitis vinifera Solanum tuberosum	Oryza sativa Hordeum vulgare 6 Nicotiana tabacum 6	Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Pisum sativum Thlaspi caerulescens Medicago truncatula	Nicotiana tabacum Nicotiana tabacum Catharanthus roseus Catharanthus roseus Mesembryanthemum crystallinum Oryza sativa Oryza sativa Nicotiana tabacum
X07280 U72253 U01900 M62907 AF030771	U2214/ U72250 AF141654	M80604 AJ133470 M59443 M60402 M59442	M60403 X53129 X81560 AJ277900 U01902	AE030166 U96096 AF141653	1641 AF246266 AF136580 AF246266 AF136579 AF065444 AF133267	1642 AF211531 AF211530 AJ251249 AJ251250 AF245119 AB03683 AB037183 AJ299252
CAA30261.1 AAD10384.1 AAA88794.1 AAA32939.1 AAC14399.1	AAA87456.1 AAD10381.1 AAD33881.1	AAA03617.1 CAB38443.1 AAA63542.1 AAA63539.1	AAA63540.1 CAA37289.1 CAA57255.1 CAB91554.1 AAA19111.1	AAB86541.1 AAC39322.1 AAD33880.1	SEQ ID NO. AAF97510.1 AAD30549.1 AAF97509.1 AAD30548.1 AAC17441.1 AAF61374.1 AAF609635.1	SEQ ID NO. AAG43549.1 AAG43548.1 CAB96899.1 CAB96900.1 AAF63205.1 BAB16083.1 BAB03248.1 CAC12822.1
Oryza sativa Oryza sativa Glycine max Craterostigma plantagineum	Nepenthes alata	Pisum sativum Oryza sativa	Petroselinum crispum Petroselinum crispum Nicotiana tabacum Nicotiana tabacum	Petroselinum crispum Avena fatua Petroselinum crispum Nicotiana tabacum	Cucumis sativus Avena fatua Nicotiana tabacum Matricaria chamomilla Nicotiana tabacum Oryza sativa	Pisum sativum Brassica napus Musa acuminata Musa acuminata Nicotiana tabacum Solanum tuberosum Solanum tuberosum Triticum aestivum Lycopersicon esculentum Nicotiana plumbaginifolia
AF211193 AC079890 X92489 AJ005820	1637 AF080545	1638 X97322 D38012	1639 US6834 AF121354 AB020023 AF096299	U48831 248429 U58540 AF096298	144134 248431 AF193771 AB035271 AF193770 1640 U72255	AB025462 AJ251646 X69887 AF001523 AF004838 Z28697 U01901 AF067863 U30323 M80608 M23120
AAF19980.1 AAK31270.1 CAA63222.1 CAA06717.1	SEQ ID NO. 1 AAD16016.1	SEQ ID NO. 1 CAA65987.2 BAA07209.1	SEQ ID NO. 1 AAC49528.1 AAD27591.1 BAA77358.1 AAD16139.1	AAC49527.1 CAA88326.1 AAC49529.1 AAD16138.1		BAA89481.1 CAB85903.1 CAA49513.1 AAB82772.2 AAF08679.1 CAA82271.1 AAA18928.1 AAA18928.1 AAA90953.1 AAA90953.1 AAA34078.1

Hordeum vulgare Lycopersicon esculentum Oryza sativa Prunus dulcis	Brassica napus Brassica napus Glycine max Glycine max Clycine max Lotus japonicus Cucumis sativus Nepenthes alata Prunus dulcis	Selaginella lepidophylla Zinnia elegans	Nicotiana alata Clcer arietinum Prunus dulcis Prunus dulcis Pyrus pyrifolia Zinnia elegans Lycopersicon esculentum Lycopersico
AF023472 AF016713 AF140606 AF213936	A7278966 AB052788 AB052786 AB052784 AF000392 Z69370 AF080545	1646 U967.36 1647 U19924	U13256 AJ012689 AF157011 AF227522 U19923 X79338 X79337 X77444 X79337 AF000940 AB052844 X17445 AB052843 AB052844 Y17445 AF000939 D64011 D64011 D64012 AF301533 AF239910
AAC32034.1 AAD01600.1 AAF07875.1 AAF20002.1	CACO7206.1 BAB19750.1 BAB19757.1 BAB19756.1 AAB69642.1 CAA93316.1 AAD16016.1 AAD42860.1	SEQ ID NO. AAD00829.1 SEQ ID NO. AAC49326.1	AAA21135.1 CAA10130.1 AAF82615.1 AAG09465.1 BAA08475.1 AAC49325.1 CAA55896.1 CAB40355.1 CAA55895.1 CAB40353.1 CAA55895.1 BAB19803.1 BAB19804.1 BAB19804.1 BAB19804.1 BAB19804.1 BAB19805.1 AAB58718.1 BAA10891.1 BAA10891.1 BAA10891.1 BAA10891.1 BAA10891.1 BAA10891.1
Oryza sativa Nicotiana tabacum Nicotiana tabacum	Zea mays Chloroplast Glycine max Glycine max Oryza sativa Zea mays Daucus carota Glycine max	i -	ल दिसे 'हे देवे नेनेनेनेने नित
AF193803 AF211527 AF057373	1643 L33912 AF049706 AF049708 D78573 L33913 L11529 AF135862	AB042521 1644 AF211527 AF245119 D38123	AB016264 AB016266 AJ251250 AJ251249 AF057373 AB016265 AF274033 U91857 AB024575 AB036883 AF193803 AF193803 AF211530 AF211531 AF211531 AF21545
AAF23899.1 AAG43545.1 AAC62619.1			

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Zea Zea Zea Pice Zea	AF244687 Zea mays AF244696 Zea mays AJ010449 Alopecurus myosuroides AF244692 Zea mays AF244685 Zea mays AF24685 AE2 mays	Alopecutus Alopecurus Zea mays Zea mays Zea mays Zea mays Zea mays	AF243303 GLYCIDE MAX AF243374 Glycine max AF051238 Picea mariana AF244701 Zea mays AF244700 Zea mays AF243372 Glycine max AF243366 Glycine max AF243366 Glycine max	AF000392 Lotus japonicus AF016713 Lycopersicon esculentum AF023472 Hordeum vulgare AF213936 Prunus dulcis AF140606 Oryza sativa AJ278966 Brassica napus Z69370 Cucumis sativus AB052785 Glycine max AB052788 Glycine max AB052784 Glycine max AF080545 Nepenthes alata AF154930 Prunus dulcis
AAG34840.1 AAG34848.1 AAG34833.1 AAC32118.1 AAG34850.1	AAG34830.1 AAG34839.1 CAA09188.1 AAG34835.1 AAG34828.1	CAACG187.1 CAACG189.1 AAG34847.1 AAG34846.1 AAG34841.1 AAG34841.1 AAG34845.1 AAG34845.1	AAG34 / 98.1 AAG34809.1 AAG34844.1 AAG34807.1 AAG34807.1 AAG34807.1 AAG34801.1	
Petunia x hybrida Nicotiana alata Solanum chacoense Solanum chacoense		Petroselinum crispum Avena fatua Petroselinum crispum Avena fatua Nicotiana tabacum Nicotiana tabacum Matricaria chamomilla	Oryza sativa Oryza sativa Vitis riparia Phaseolus vulgaris	Nicotiana tabacum Nicotiana tabacum Oryza sativa Papaver somniferum Papaver somniferum Gossypium hirsutum Zea mays Glycine max Zea mays
U07362 D63888 AF191732 AF176533	U56834 AB020023 AF096299 AF121354 L44134	U48831 Z48429 U58540 Z48431 AF096298 AF193771 AB035271	1650 AP000616 AJ245900 1654 AF178990 US4704	AF212183 Y07563 AF039532 1665 AF118924 AF118925 AF159229 AF244695 AF244695 AF244699
	AAC49528.1 BAA77358.1 AAD16139.1 AAD27591.1 AAC37515.1	AAC49527.1 CAA88326.1 AAC49529.1 CAA88331.1 AAD16138.1 AAF61864.1 BAA87069.1	SEQ ID NO. 1 BAA85440.1 CAB53493.1 SEQ ID NO. 1 AAB01854.1 AAB00555.1	

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Lycopersicon esculentum Chlorella kessleri Lycopersicon esculentum Oryza sativa Chlorella kessleri Nicotiana tabacum Ricinus communis Chlorella kessleri Vitis vinifera Vicia faba Oryza sativa Beta vulgaris Lycopersicon esculentum Catharanthus roseus Catharanthus roseus Catharanthus roseus Catharanthus roseus Catharanthus roseus Glycine max Glycine max Glycine max Glycine max Glycine max Glycine max Lycopersicon hirsutum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium	Lycopersicon nissurum Malus x domestica Zea mays Lycopersicon esculentum Lycopersicon esculentum Oryza sativa
	AF318490 AF053127 U67422 U59316 AF220603 AC073405
	AAK11566.1 AAC36318.1 AAB09771.1 AAB47421.1 AAF76313.1 AAG03090.1
napus	. dulce
Brassica napus Phaseolus vulgaris Oryza sativa Populus nigra Lophopyrum elongatum Lophopyrum elongatum Oryza sativa Zea mays Nicotiana tabacum Nicotiana tabacum Zea mays Oryza sativa Ipomoea trifida Oryza sativa Brassica oleracea Oryza sativa Brassica napus Oryza sativa Brassica napus Brassica oleracea Brassica rapa Brassica rapa	Apium graveolens var. Nicotiana tabacum Spinacia oleracea Solanum tuberosum Zea mays
1668 AY028699 AF078082 127821 AB030083 AF131222 AC073405 U82481 AF142596 AF302082 U67422 U67422 AF172282 U20948 AP001800 Y12531 AP001551 AP001551 AY007545 00069 D31737 Y12530 AJ245479 M97667 AB032474 M76647 Z18921 X98520 Y14285 U00443 AB000970 D38564 Y14286	1669 AF215837 AF215852 AF215851 AF215853 AF215854
SEQ ID NO. 1 AAK21965.1 AAK33915.1 BAA833915.1 BAA82556.1 AAK11674.1 AAK3496.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG03090.1 AAG0300.1 CAA73134.1 BAA92954.1 BAA92955.1 CAA73133.1 CAA73133.1 CAA73133.1 CAA73133.1 CAA73133.1 CAA73133.1 CAA73133.1 CAA73100.1 AAA33000.1 AAA33000.1 AAA33000.1 CAA74661.1 BAA06532.1 BAA07577.2 CAA74662.1	SEQ ID NO. AAG43998.1 AAF74566.1 AAF74565.1 AAF74568.1

	4	103	
Solanum tuberosum Solanum tuberosum Solanum tuberosum Adiantum raddianum Adiantum raddianum Oryza sativa Petunia x hybrida	Secale cereale Nicotiana tabacum Gossypium hirsutum Lycopersicon esculentum Glycine max Hordeum vulgare Hordeum vulgare Avena sativa Nicotiana tabacum	Lollum temulentum Glycine max Glycine max Hordeum vulgare Hordeum vulgare Triticum aestivum Glycine max Oryza sativa Oryza sativa Petunia x hybrida Oryza sativa	Oryza sativa Lycopersicon esculentum Gossypium hirsutum Petunia x hybrida Lycopersicon esculentum Nicotiana tabacum Arachis hypogaea Petroselinum crispum
1677 AF122051 AF122052 AF122053 AF190304 AF190303 AF190303	AF190301 AF190301 AF198498 AF336286 X95297 AB029159 X70879 A7133638 AF198499	AF114162 AB029161 AB029160 X87690 AY008692 AB044084 AB029165 X11415 X98355	1679 X823296 AF336283 Z13996 X99134 AB028650 AB128650
	AAF67051.1 AAF67050.1 AAG28525.1 AAK19619.1 CAA64615.1 BAA81730.1 CAA50224.1 CAA50222.1 CAA50222.1	AAD31395.1 BAA81732.1 BAA81731.1 CAA61021.1 AAG22863.1 BAA96421.1 BAA96421.1 BAA91733.2 BAA81736.1 CAA72218.1 CAA72218.1	EAA23341.1 CAA64614.1 AAK19616.1 CAA78386.1 CAA67575.1 BAA88222.1 SEQ ID NO. CAA57773.1
Populus nigra Lycopersicon esculentum Populus nigra Nicotiana tabacum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Oryza sativa Lycopersicon esculentum	Solanum tuberosum Oryza sativa Oryza sativa Oryza sativa Brassica juncea	Medicago truncatula Cucumis melo Cucurbita sp. Cucumis melo Cucumis melo Brassica juncea Cucumis melo Cucumis melo Orcumis melo	Capsicum annuum Liriodendron tulipifera Liriodendron tulipifera Nicotiana tabacum Liriodendron tulipifera Liriodendron tulipifera Acer pseudoplatanus Brassica napus Nicotiana tabacum Nicotiana tabacum Petunia x hybrida
AB041503 AF220603 AB041504 AF302082 AF220602 U59317 AB023482	1674 US2079 AP000391 AP001111 AP001111 1675 AF206721 D43624	J04494 X15295 AF233594 X55779 D55677 AF233593 Y10226 AF206723 X10224 Y10225	AF202460 U73105 U73103 U43542 U73106 U73104 U12757 X64257 U45243 U43543
BAA94509.1 AAF76314.1 BAA94510.1 AAG25966.1 AAF76307.1 AAB47424.1 BAA7474.1	द्रवत्त्व द्रवत्	AAA33119.1 CAA75577.1 AAE35911.2 CAA39300.1 BAA09528.1 AAE35910.1 CAA71275.1 AAE20932.1 AAE20933.1 CAA71273.1	AAE33751.1 AAB17193.1 AAB17191.1 AAB17194.1 AAB17194.1 AAB09228.1 CAA45554.1 AAC49537.1 AAC49537.1

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Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Oryza sativa	Atriplex lentiformis	1	Mesembryanthemum crystalli	Pisum sativum	Triticum aestivum	Pisum sativum	Triticum aestivum	Oryza sativa	Oryza sativa	Oryza sativa	Hordeum vulgare	Oryza sativa	Hordeum vulgare	Oryza sativa 6		Oryza sativa	Hordeum vulgare	Hordeum vulgare	Triticum aestivum	Oryza sativa	Oryza sativa	Oryza sativa	Hordeum vulgare	Hordeum vulgare	Lolium perenne	Triticum aestivum	Triticum aestivum	Hordeum vulgare	Hordeum vulgare	Pisum sativum	Hordeum vulgare	Triticum aestivum	Triticum aestivum	Triticum aestivum	Barbula unguiculata	
X78325 X77110 X77111	1685 AL117264	AB024338	AE042489	M93041	AJ250834	AJ237943	AJ250833	AJ237942	AF141878	AF141880	AF032976	AF250933	AF141879	X93171	AE032972	AE032973	AF032971	AF250934	AF250935	AF005084	AF032974	AP003018	AP003020	AF250936	U01963	AJ291825	M63223	M21962	X14203	AF250937	AJ250832	1,15737	Y09917	M63224	Y09915	AB028454	
CAA55128.1 CAA54373.1 CAA54374.1	SEQ ID NO. 1	BAA78563.1	AAB97470.1	AAA33030.1	CAB65371.1	CAR55559.1	CAB65370.1	CAB55558.1	AAD43971.1	AAD43973.1	AAC04837.1	AAG00425.1	AAD43972.1	CAA63659.1	AAC04833.1	AAC04834.1	AAC04832.1	AAG00426.1	AAG00427.1	AAF34811.1	AAC04835.1	BAB39965.1	BAB39980.1	AAG00428.1	AAA20245.1	CAC19429.1	AAA34270.1	AAA34268.1	CAA74595.1	AAG00429.1	CAR65369.1	1 9396544	CA271052 1	AN 34271 1	CAA71050.1	BAA86880.1	
Brassica napus Brassica napus Brassica napus	Cicer arietinum Populus tremuloides	Lolium perenne	Lithospermum erychitzen	Petroselinum crispum	Rubus idaeus	Petroselinum crispum	Populus tremuloides		Pinus taeda		Populus x generosa		Populus x generosa		Pinus taeda	Rubus idaeus	Lithospermum eryclirozurzen	Solanum tuberosum	Lolium perenne	Kubus Idaeus	crycine max	Jugrans nigra	Tsuga canadensis	Notnotsuga Longinaracteres	rsuga canadensas			Finus		Pinus armand	Pseudotsuga	Щ		Tsuga	Abies firma		
AJ401089 Z72153 X94624	AJ006025 AF041050	AE05223	D49367	X13324	AF239686	X13325	AF041049	U39404	012013	039405	AF008184	AF052222	AF008183	X52623	012012	AF239685	D49366	M62755	AF05221	AF239687	X69954	AJ278455	AF144525	AF144523	AF144526	AF144504	AF144529	AF144502	AF144501	AF144503	AF144511	AF144509	AF144527	AF144524	AF144515	7071	
CAC19877.1 CAA96523.1 CAA64327.1	CAA06820.1 AAC24504.1	AAF37734.1		CAA31696.1	AAF91309.1	CAA31697.1		•	AAA92669.1	AAB42383.1	AAC39366.1	AAF37733.1	AAC39365.1	CAA36850.1	AAA92668.1	AAF91308.1	BAA08365.1	AAA33842.1	AAE37732.1	AAF91310.1	CAA49575.1	CAB97359.1	AAE74018.2	AAE74016.2	AAE74019.2	AAF73997.2	AAF74022.2	AAE73995.2	AAF73994.2	AAF73996.2	AAF74004.2	AAF74002.2	AAE74020.2	AAF74017.2	AAF74008.2	4	SEC ID NO.

SEQ ID NO. 1684

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Oryza sativa Hordeum vulgare Hordeum vulgare Linum usitatissimum Datura stramonium	Hyoscyamus niger Solanum tuberosum Hyoscyamus niger Datura stramonium Hyoscyamus niger Solanum tuberosum Solanum tuberosum Cuphea lanceolata Brassica napus	Zea mays Hordeum vulgare Brassica napus Nicotiana tabacum Allium porrum Oryza sativa Nicotiana tabacum	Zea mays Zea mays Zea mays Daucus carota Triticum aestivum Triticum aestivum Zea mays Glycine max Craterostigma plantagineum Triticum aestivum
1689 AP000615 Y14573 Z83834 AJ005341 1690 L20475 L20473	AB026544 AJ307584 D88156 L20474 AB026545 L20485 AJ292343 X64566 X64463	U89509 U89510 S60064 Y13861 U89511 AF093628 Y13862 1691	234465 AF159297 1695 AF308736 AF255052 X56882 U05226 AF166485 M62989 AF255053
SEQ ID NO. 18AA85400.1 CAA74909.1 CAB06083.1 CAA06487.1 SEQ ID NO. AAA33280.1	BAA85844.1 CAC34420.1 BAA13547.1 AAA3282.1 BAA85845.1 AAB09776.1 CAB52307.1 CAC19810.1 CAA45866.1	AAB82767.1 AAB82766.1 AAB20114.2 CAA74176.1 AAB82764.1 AAC78100.1 CAA74177.1 SEQ ID NO.	CAA84230.1 AAD55980.1 SEQ ID NO. AAG24641.1 AAF68627.1 CAA40204.1 AAA83402.1 AAA83402.1 AAA63614.1 AAF68628.1 CAA03925.1
Nicotiana plumbaginifolia Lycopersicon esculentum Solanum tuberosum Oryza sativa Pinus caribaea Triticum aestivum Pinus radiata	Sorghu Maniho Maniho Sinapi Triglo Triglo Glycin	Petunia x hybrida Nicotiana tabacum Solanum melongena Pisum sativum Persea americana Antirhinum majus Glycine max Eustoma grandiflorum Nicotiana tabacum Lotus japonicus	Glycin Glycin Brassi Glycyr Glycyr Helian Helian Glycin Solanu
AF132671 AB012138 AF067731 AF072694 AF039201 Y09916 AF049065 AJ311624	1688 U32624 AF140613 AF140614 AF069494 AF140609 AF140610 AB006790 AF022458	AFUBLD /5 AF155332 X95342 X70824 AF218296 M32885 AB028151 AF135485 U72654 X96784	AF022461 D83968 AF214008 AB022732 AB001379 AF214007 AJ000478 AF022464 D86351 X71656
AAF03355.1 BAA25197.1 AAC78470.1 AAC25777.1 AAC99473.1 CAA71051.1 AAC05146.1		AAC32274.1 AAD56282.1 CAA64635.1 CAA50155.1 AAG44132.1 AAA32913.1 BAA84071.1 AAB17562.1 CAA65580.1	AAB94590.1 BAA12159.1 AAG14962.1 BAA2422.1 AAG14961.1 CAA04117.1 CAA04116.1 AAB94593.1 BAA13076.1

		napu	407		
Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea	Brassica oleracea Brassica oleracea Brassica rapa Brassica napus Brassica napus	napus subsp. oleracea oleracea rapa rapa rapa rapa	Brassica rapa Nicotiana tabacum Brassica oleracea Brassica napus Nicotiana tabacum Oryza sativa Brassica napus		Picea ables Gossypium hirsutum Spinacia oleracea Nicotiana tabacum Armoracia rusticana
Y12530 Y18259 Y18260	X14286 M76647 AB000970 M97667	A2245479 AB032473 218921 AB032474 D38564 D38563 AB054061	D88193 AF088885 Z18884 AY028699 AF142596 AC073405 AY007545 AB041503	1711 AF244923 AF244924 AB042103 AP001383 AF244922 X91232 AP001366 AP001383	AJ250121 AF155124 Y10466 AB027752 D90115
CAA73133.1 CAB41878.1 CAB41879.1	CAA74662.1 CAA74662.1 AAA33000.1 BAA23676.1 AAA33008.1	AAAO223 CAB89179.1 BAA92836.1 CAA79355.1 BAA9757.2 BAA07576.1 BAB21001.1 BAA06285.1	BAA21132.1 AAD52097.1 CAA79324.1 AAK21965.1 AAG66615.1 AAG3090.1 AAG16628.1 BAA94509.1	SEQ ID NO. AAF63026.1 AAF63027.1 BAA94962.1 BAA52500.1 AAF63025.1 CAA62615.1 BAA92422.1 BAA92497.1	CAB65334.1 AAD43561.1 CAA71492.1 BAA82306.1 BAA14143.1
Picea glauca Triticum aestivum	Citrus unshiu Citrus unshiu Tagetes erecta Lycopersicon esculentum	Capsicum annuum Lycopersicon esculentum Capsicum annuum Narcissus pseudonarcissus Haematococcus pluvialis Lotus japonicus	Nicotiana tabacum Phaseolus vulgaris Pisum sativum Lilium longiflorum Brassica napus Phaseolus vulgaris Solanum tuberosum Solanum tuberosum		Phaseolus vulgaris Brassica oleracea Zea mays Brassica oleracea Ipomoea trifida
L42465 M72395	1696 AF296158 AF315289 AF251018 Y14809	X09722 X14810 X09225 AJ278882 AF162276 1697 AJ251808	AF211529 AF030033 U13882 Z12839 U10150 AF030032 U20297	020295 020294 049105 049103 048699 048688 048242	1708 AF078082 Y12531 U82481 X98520 U20948
aaa85367.1 aaa34267.1	SEQ ID NO. 1 AAG10793.1 AAG33636.1 AAG10430.1		AAG43547.1 AAD10245.1 AAA92681.1 CAA78301.1 AAA19571.1 AAA85157.1 AAA85157.1	AAA62351.1 AAR85155.1 AAC49586.1 AAC49586.1 AAC49585.1 AAC49589.1 AAC49579.1 AAC49579.1	SEQ ID NO. AAD21872.1 CAA73134.1 AAB93834.1 CAA67145.1

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AJ238754 Citrus clementina x Citrus	D10002 Pisum sativum D10003 Pisum sativum		25	Trifolium sub		54 Rubus idaeus	Petroselinum	X81158 Petroselinum crispum	AJ250836 Cicer arietinum	AJ002221 Digitalis lanata	AF036948 Prunus avium	D85850 Daucus carota	Bromheadia	L11747 Populus x generosa	Lithospermum erythro			Lycopersicon esculentum	D43802 Populus kitakamiensis	U39792 Pinus taeda	Y12461 Helianthus annuus	AB042520 Catharanthus roseus	D26596 Camellia sinensis	D83076 Lithospermum erythrorhizon		Glycine ma		00		AJ238753 Citrus clementina x Citrus		AF325496 Ipomoea nil	X78269 Nicotiana tabacum	D17467 Nicotiana tabacum	AB008199 Nicotiana tabacum	Lycopers	Ipomoea	M29232 Ipomoea batatas
CAB42794.1	BAA00886.1 BAA00887.1	AAB67733.1	AAF40224.1	AAA17993.1	CAA57057.1	AAF40223.1	CAA68938.1	CAA57056.1	CAB60719.1	CAA05251.1	AAC78457.1	BAA23367.1	CAA68256.1	AAA33805.1	BAA24928.1	CAA34226.1	CAA41169.1	AAA34176.1	BAA07860.1	AAA84889.1	CAA73065.1	BAA95629.1	BAA05643.1	BAA24929.1	BAA21643.1	CAA37129.1	AAA34122.1	BAA22948.1	AAA99500.1	CAB42793.1	reticulata	AAG49585.1	CAA55075.1	BAA22963.1	BAA22947.1	AAA34179.2	BAA11459.1	AAA33389.1
Populus balsamifera subsp.	Phaseolus vulgaris	Populus Alcaramiemsis Populus balsamifera subsp.		Stylosanthes humilis	Populus kirakamiensis				Domling nigra			OLyza saciva	Medicago saciva	Tinim initation	scutellaria batcalensis	Tinum usitatissimum	Clyche max	Populus balsamifera subsp.		Armoracia risticana		Timm usitatissimm	Oriva satius	Medican sativa	phaseolus vulgaris	Arachis byoodaea	Scutellaria baicalensis	Orvza sativa	Spinacia oleracea	Raphanus sativus		Orvza sativa	Spinacia oleradea			Pisum sativum	Agastache rugosa	
X97351	AF149280	D30653 x97348	0000	1,37790	120057	DOOGEO	7575X	200	30000	D03223	AU242/142	APOULDSI	X90693	D03224	AEO49001	AD02433	100000 K	AF00/211	1500	799697	# OC 10 X	101100	124120 040651	76060A	750624	M37636	DB024438	DE01158	V10467	X91172	D16442	DE014470	V1045	005011	1713	010001	AF326116) ()
CAA66037.1	trichocarpa AAD37430.1	BAA06335.1	CAAbbooss . I	rrichocarpa manasea 1	AAB02334.1	BAA0/241.1	BAA06334.1	CAMBOUSOLE	trichocarpa	BAALL633.1	CABS4692.1	BAA92967.1	CAA62226.1	BAALI852.1	AACU5277.1	BAA / / 389. I	AAB4 / 002 . 1	AACSESTS.I	CAMODOSSIS	tricnocarpa	CAA40/90.1	CAA59487.1	AAB48184.1	BAAO8499.1	CAR62221.1	AAD3/427.1	AMBUGIOS.I	1.0007044	AAC43019.1	1.00403440	BAB0391.1	1.1000004	AAC43021.1	CAA / 1431.1	CN OT CRO		1.0000000	TOPOTOR

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Armoracia rusticana Cucumis sativus Armoracia rusticana Orvza sativa	Nicotiana tabacum Nicotiana tabacum	Armoracia rusticana	Cucumis sativus	Cucurbica pepo Oryza sativa	Scutellaria baicalensis	Gossypium hirsutum	Arachis nypogaea	Spinacia oleracea	Spinacia Oleracea	Stylosanthes humilis	Asparagus officinalis	Scutellaria baicalensis			Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Adiantum raddianum	Adiantum raddianum	Oryza sativa	Secale cereale		Lycopersicon esculentum	Oryza sativa	Oryza sativa	Petunia x hybrida	Glycine max	Oryza sativa	Nicotiana tabacum	Petunia x hybrida	Glycine max	Glycine max	Glycine max	Glycine max	Oryza sativa	•
D90116 M91372 D90115	L02124 AB027752	X57564	M32742	Y17192 AP001383	AB024438	AE155124	M37636	AF244924	Y10466	L37790	AB042103	AB024439		1716	AF122051	AF122052	AF122053	AF190303	AF190304	AF172282	AF190302	AF190301	X98308	AC037425	X11350	213998	AB029162	Y11414	AB028650	213997	AB029165	AB029159	AB029161	AB029160	X98355	! !
BAA14144.1 AAA33129.1 BAA14143.1	AAA34101.1 BAA82306.1	CAA40796.1	AAA33121.1	CAA76680.1	BAA77388.1	AAD43561.1	AAB06183.1	AAF63027.1	CAA71492.1	AAB02554.1	BAA94962.1	BAA77389.1		SEO TD NO.		1.00000044	AAG08961.1	AAF67052.1	AAF67053.1	AAF34434.1	AAF67051.1	AAF67050.1	CAA66952.1	AAG13574.1	CAA72185.1	CAA78388.1	BAA81733.2	CAA72217.1	BAA88222.1	CAA78387.1	RAA81736.1	1 0511244E	1 0571944G	BAB81731 1	Caa67000.1	
Triticum aestivum Oryza sativa Populus kitakamiensis	Vigna unguiculata Cucumis melo	Persea americana Dispthus carvophyllus	Petroselinum crispum	Populus kitakamiensis		אט דמדמל פפראני	- :	Phaseoins varyarity		boomlus kitakamiensis	Corato atomical tabacia	NICOLIANA CADACUM	NICOLIAMA CADACCAM	Lycopersicon escurentum		nigra	Populus balsamifera subsp.				Populus balsaminera subsp.		Linum ustatissimum	Phaseolus vulgalis				Populus Kitakamtensis			Medicago sativa	0	0	•		Populus Kitakamiensis
X99705 X87946 D30657	AF165998 X76130	016130	AB041361	D43803		1714	AJ242/42	AF149280	X9/321	637000	D30633	J02979	D11396	X71593	X19023	D83225	X97348		D11102	D83224	X97349		L07554	AF149277	X97350		AF014502	D30652	D38051	X90693	X90692	X90694	L36157	L36156	AF007211	D13683
CAA68036.1 CAA61198.1 BAA06337.1	AAD45384.1 CAA53733.1	AAA51873.1	BAB19128.1	CAA34/15.1 BAA07861.1			CAB94692.1	AAD37430.1	CAA66037.1	trichocarpa	BAA06335.1	AAA34108.1	BAA01992.1	CAA50597.1	CAB67121.1	BAA11853.1	CAA66034.1	trichocarpa	BAA01877.1	BAA11852.1	CAA66035.1	trichocarpa	AAB47602.1	AAD37427.1	CAA66036.1	trichocarpa	AAB97734.1	BAA06334.1	BAA07241.1	CAA62226.1	CAA62225.1	CAA62227.1	AAB41811.1	AAB41810.1	AAC98519.1	BAA02840.1

Populus balsamifera subsp.		Dinum usicacissimum		Fobutus IIIgra	TITCIM DESCIAMI	Glycine max	Oryza sativa	Oryza sativa	Spinacia oleracea	Donning halsamifera subsp.		•	Spinacia oleracea		Populus balsamifera subsp.		Medicago sativa	Oryza sativa	Oryza sativa	Ipomoea batatas +	Oryza sativa	Oryza sativa	Raphanus sativus	Linum usitatissimum	Populus balsamifera subsp.		# * * * * * * * * * * * * * * * * * * *	rriticum aestivum	Phaseolus vulgaris	Striga asiatica	Scutellaria baicalensis	Medicago sativa	Armoracia rusticana	Triticum aestivum			Lilium longiflorum	Nicotiana tabacum	Nicotiana tabacum			Nicotiana Labacum	בוכפס וווסד דסווס
X97349	•	L24120	40.700g	D83224	877C8X	AF014502	D16442	AF014470	Y10467		X9/348		X10465	AF149280	x97350		X90694	X66125	AP001551	AJ242742	D49551	AF014467	X91172	AF049881	X97351	10000		X236/5	AE149277	AF043235	AB024438	X90693	D90115	X85230		1720	U24188	070923	AF145593	NEO01913	AE UO / OLD	038446	Arusizii
CAA66035.1	trichocarpa	AAE48184.1	CAA40/90.1	BAA11852.1	CAA59485.1	AAB97734.1	BAA03911.1	AAC49821.1	1 60717447	CAR. 1433.1	CAA66034.1	trichocarpa	CAA71491.1	AAD37430.1	CAA66036.1	trichocarpa	CAA62227.1	CAA46916.1	BAA92967.1	CAB94692.1	BAA08499.1	AAC49818.1	CAA62597.1	AAC05277 1	1.1.2000	CAMBOOC	trichocarpa	CAA37713.1	AAD37427.1	AAB97854.1	BAA77388.1	CAA62226.1	BAA14143.1	CAA59487.1		SEQ ID NO.	AAC49008.1	AAD52098.1	1 19282044	1 0000000	AAD52092.1	AAF21450.1	AAC32116.1
Incopersicon esculentum	iva	E	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	. 2	מאסטרוויים אייטריים וויים אייטריים וויים אייטריים וויים וויי		Triticum aestlvum	Oryza sativa	Orvza sativa	Nicotiana tabacum			Orvza sativa			Orwza satiwa	Spinacia oleracea			011-1-1-00 G			Spinacia oleracea	Mercurialis annua	Oryza sativa	Oryza sativa	Spinacia oleracea		Nicotiana tabacum		Scutellaria balcalensis	kitakamiensis				Strill control himilio	STATOSAUCHES HAMITTES	2	Populus nigra	
x 99134	AJ133638	AF114162	AB028652	U72762	AB028651	DB028649	V87690	0600000	AXOUBESZ	AB044084	X11415	D88621	DF198499	75 25 13 W	213996	22222	30011	1718	027301	02.04.00 k	AD0.024	0,17	L/13	AFOUTSES	AF244924	AF244923	X91232	AP001366	AP001383	AF244922	AB042103	AB027752	DF155124	DE02429	n38051	769CEM	320.CX	00000	20000	L3//90	AF149278	D83225	
1 2222	CAR40189.1	AAD31395.1	BAA88224.1	AAB41101.1	BAA88223.1	ר וככפפתתם	BAR00221.1	CAMBIUZI.I	AAG22863.1	BAA96421.1	CAA72218.1	L 17850 4 4	1.25.00.044	1.02000	AAG20323.1	יי בסנטיקיט	CAM/210/.1	L ON OIL OBS		AAA0/00/.1	BABZU061.1			BAA92500.1	•	AAF63026.1	CAA62615.1		BAA92497.1	•	BAA94962.1	1 3067844E	1 1922044	ביבטטטירעהם	1.60011AAA	DAMO / 241.1	AABU0103.1	CAM / 1492 . 1	BAAU0334.1	AAB02554.1	AAD37428.1	BAA11853.1	

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Pyrus communis Gossypium hirsutum Gossypium hirsutum Corylus avellana Prunus dulcis Gossypium hirsutum Spinacia oleracea	-		Gerbera hybrida Capsicum annuum Brassica napus
AF221503 AF228333 AF195864 AF329829 X96714 AF044204 M58635	AJ277164 X96716 AF195863 AF195863 AJ002958 S78173 U15153 AF151214 U72765 X71667 AF101038	AF171094 U31766 X62395 AJ277163 Z23271 X71668 J04176 Z37115 U66105 D13952 U18127	m
AAF26451.1 AAG29777.1 AAF35185.1 AAK28533.1 CAA65475.1 AAC00499.1	CAB96874.1 CAA65477.1 AAF35184.1 CAA05771.1 AAB34774.1 AAF28385.1 AAC49860.1 CAA50660.1	AAD46683.1 AAA74624.1 CAA44267.1 CAB96876.1 CAAS0661.1 AAA33493.1 CAAS5484.1 AAB06443.1 BAA03044.1 CAA63407.1	CAA83459.1 AAF23459.1 SEQ ID NO. CAA34248.1 CAA31517.1 CAA31516.1 CAA30782.1 CAA349802.1 CAA34247.1
Pisum sativum Zea mays Cucurbita pepo Solanum tuberosum Solanum tuberosum Solanum tuberosum	Capsicum annuum Fragaria x ananassa Triticum aestivum Triticum aestivum Oryza sativa Oryza sativa Solanum tuberosum Solanum tuberosum Pisum sativum	Triticum aestivum Oryza sativa Brassica napus Brassica napus Oryza sativa Oryza sativa Oryza sativa	Brassica oleracea Brassica oleracea Brassica oleracea Brassica napus Brassica napus Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica hapus Brassica oleracea Brassica hapus
U13736 L27484 U90262 U20297 U20296 U20295	AJO10645 AF035944 U48691 Z12828 L18914 U10150 U20293 U13882	1721 AP002899 U39289 U39319 AP001633 AP001633 AP001633 AP001633	1722 L33904 AF093751 L33906 U22105 L33905 L33907 L29767 AF221501 AF21502
AAA92677.1 AAA61682.1 AAB49984.1 AAA85157.1 AAA62351.1 AAA62351.1	AAA85155.1 CAA09302.1 AAB88537.1 AAC49582.1 AAC49583.1 CAA78288.1 AAA33900.1 AAA19571.1 AAA85154.1 AAA85152.1		SEQ ID NO. 1 AAA73945.1 AAC63372.1 AAA73947.1 AAA73946.1 AAA64310.1 AAA73948.1 AAA73948.1 AAA73995.1 AAF26499.1 AAF26450.1

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Pisum sativum Coffea eugenioides Coffea canephora Coffea arabica Coffea congensis	Brassica juncea Nicotiana glutinosa Citrus sinensis Citrus sinensis Lycopersicon esculentum Lycopersicon esculentum	a Sin	Pelargonium x hortorum Pisum sativum Cucumis sativus Solanum tuberosum Nicotiana glutinosa Prunus mume Lupinus albus Nicotiana glutinosa Citrus sinensis	Nicotiana tabacum Lycopersicon esculentum Medicago sativa Medicago sativa Pisum sativum Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Antirrhinum majus Antirrhinum majus
X54377 AF043099 AF043097 AF042072 AF043098	1726 X72676 AF057563 AJ012551 AJ012550 U18056 U18057	X98492 M66619 AB013100 AJ012696 X59139 X59145 U68216	U88971 AF016459 AB006804 AB041521 AF061605 AB031026 AF119411 AF057562 AJ011095	1727 AJ011893 AJ002589 AJ132929 X88864 AB008188 AJ002588 AJ245415 AJ011894 AJ250398
CAA38252.1 AAB99846.1 AAB99844.1 AAB97081.1 AAB99845.1	SEQ ID NO. 1 CAA51227.1 AAC83147.1 CAB60722.1 CAB60721.1 AAF97614.1	CAA67118.1 AAA33275.1 BAA34923.1 CAB60831.1 CAA41855.1 CAA41856.1 AAC98809.1	AAB70885.1 AAD04199.1 BAA33375.1 BAB16433.1 AAC15777.1 BAA90549.1 AAF22109.1 AAC83146.1	SEQ ID NO. CAA09853.1 CAB60837.1 CAB40540.1 CAB61334.1 BAA33153.1 CAB60836.1 CAB61223.1 CAB61222.1
Brassica napus Brassica rapa Brassica rapa Brassica rapa Brassica napus	ia x anana ca napus ium hirsuti drum sativ ina glauca m vulgare	Capsicum chinense Hordeum vulgare Cuphea lanceolata Hordeum vulgare Cuphea lanceolata Hordeum vulgare	Cuphea lanceolata Spinacia oleracea Zea mays Brassica napus Spinacia oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea	ays ica ica ica ica ria ria ria
X13128 X70337 Y00418 S84968 X13123	8 7 6 8 6 0	AF127796 M58754 X95253 M24426 X77621 M24425 M58753	X77622 X52065 X52065 X13124 X13124 M17636 AF229423 AF229418 AF229427	AF229420 AF229420 AF229421 AF229422 AF229419 AF229419 236879 254239 Z55857 AF024589
CAA31519.1 CAA49803.1 CAA68475.1 AAB21541.1	AAC39495.1 CAA31518.1 AAB05224.1 AAD46394.1 CAA71885.1 AAA32921.1 CAA54714.1	AAD21198.1 AAA32922.1 CAA64542.1 AAA32924.1 CAA54715.1 AAA32923.1	CAA54716.1 CAA36288.1 CAA41024.1 CAA31515.1 AAA34023.1 AAK00698.1 AAK00699.1 AAK00699.1 AAK00699.1	AAK00697.1 CAA65138.1 AAK00692.1 AAK00694.1 AAK00691.1 SEQ ID NO. CAA85353.1 CAA85353.1 CAA81076.1

Oryza	Oryza	Oryza sativa			Nicotiana tabacum				Oryza			Brassica napus			TANETI		Solanum tuberosum	Solanum tuberosum	Flaveria pringlei				Glycine max		•	5 Lycopersicon esculentum	Glycine max	Amaranthus hypochondriacus	Picea abies	Sesbania rostrata	Flaveria trinervia	1 Solanum tuberosum	Flaveria australasica	Saccharum sp.	Glycine max	Amaranthus hypochondriacus	olower's tringraid		Phaseolus vulgari	Mesembryanthemum crystallinum	Medicago sativa			2 Vicia faba	
AP001080	AP000616	AP001168		1729	AF032386		1730	1130	Arosysat		1731	D13987	PE00004 K	AFOODS.	248966	AF248080	X90982	x67053	X64144	75778079	7.005738	X29016	AB008540	AJ243417	AF135371	AJ243416	D10717	L49175	X79090	AJ286750	X61304	AJ011844	225853	M86661	013498	769105	200123	X64143	AF288382	X13660	M83086	L39371	AF268091	AJ011302	
BAA90357.1	BAA85438.1	BAA90806.1		SEO ID NO.					AAB97366.1		SEO ID NO.		1.1.0000444	AABBU/14.1	CAA88829.1	AAG17619.1	CAA62469.1	CBB47437	- 3033744D	C. 017 C. 10 4 4	AAGT / OTO . T	CAA41758.1	BAA23419.1	CAB65171.1	AAD31452.1	CAB65170.1	BAA01560.1	AAB18633.1	CAA55700.1	CAC28225.1	CAA43601.1	CAA09807.1	CAA61072.1	AAC33164.1	1 00150444	ניסטכנטייים	CAM92209.1	CAR45504.1	AAK28444.1	CAA31956.1	AAB46618.1	AAB41903.1	AAG42288.1	CAA09588.1	
Twooperaicon esculentum	Chenopodium rubrum	Medicado sativa	Chenonodium rubrum		Nicotiana capacimi	Antirrhinum majus	Nicotiana tabacum	Medicago sativa	Lycopersicon esculentum	Orvza sativa	Minor tohon	NICOLIANA LADACUM	Nicotiana tabacum	Nicotiana tabacum	Pisum sativum	Mineral tehacille	NICOLIANA CEDACOMII	Catharantina roseus	Inpinus Intens	Lupinus luteus	Glycine max	Glycine max	אמנו סיוליינה	7 CT CT	Ged mayo	Oryza sacrva	GLYCLIRE MAAA	by one optiming	יייייייייייייייייייייייייייייייייייייי	Lupinus inceus	nuprilas raceus	Daucus caloca	Carnarantina Loseus		Sesbania rostrata	Brassica napus	Lycopersicon esculentum	Zea mays	petunia x hybrida			Nicotiana tabacum		Oryza sativa	
003000+	A7012390	AUU11/0	AU132330	701011	AJ011892	AJ250396	X92964	X68741	AJ243453	78026gg	10051000	D89636	237978	X92965	D.T122722	33.07000	X93407	D86385	U24194	AF126107	226331	X62820	20202	704303	00004	X82036	D50871	AJ243452	ABOUBLES	044857	AFIZBIUB	XPZBIA	D86387	TOTOTA	Z75660	125406	AJ243454	1110076	7.7250215		000	1/20	AF 211332	AB045121	
	CABBORSB.1	CAAU9/69.1	CAB40541.1	CAA / 1244 . 1	CAA09852.1	CAB61221.1	CAA63540.1	CBA48675.1	CABA6643 1	1.00990440	BAMBOOKST	BAA20426.1	CAB81558.1	CDB63541.1	ריייייייייייייייייייייייייייייייייייייי	CAB//209.1	CAA63/53.1	BAA20410.1	AAC61889.1	AAD31790.1	CBB81232.1	CANAGE 1	CAA44032.1	CAA44188.1	AAC50013.1	CAA57556.1	BAA09467.1	CAB46642.1	BAA33154.1	AAC24245.1	AAD31791.1	CAA44631.1	BAA20412.1	CAA71243.1	CAA99990.1	AAA51660.1	CAB46644.1	1 96000444	AAA20230.1				AA643330.1	BAA/8/40.1 BAA96875.1	ı

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Carica papaya Cucumis melo Cucumis melo Nicotiana tabacum Lycopersicon esculentum Carica papaya Petunia x hybrida Lycopersicon esculentum Actinidia deliciosa Helianthus annuus Nicotiana glutinosa Prunus persica Cucumis melo Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Cucumis sativus Cucumis carivus Rumex palustris Pisum sativum Vigna radiata Vigna radiata Vigna radiata Dianthus caryophyllus	Brassica oleracea var. Brassica napus Brassica rapa Oryza sativa Brassica napus Triticum aestivum Ricinus communis Triticum turgidum subsp. Fagopyrum esculentum Nicotiana tabacum Nicotiana tabacum Picea mariana
U68215 D31727 X95551 X83229 AB013101 AF254125 L21979 X58273 AB003514 L29405 U54566 AF129074 X95553 Z54199 Y00478 AF053354 U19856 AF033582 AB006806 AF033582 AB006807 Y10034 M98357 U06046 AF315316 L35152	1736 AE273844 U59379 AB010434 AB053294 U59380 AF286593 Z70677 AJ001903 D87984 X58527 Z11803 AF051206
AAC98808.1 BAA06526.1 CAA58232.1 BAA34924.1 AAF64528.1 AAA33698.1 CAA41212.1 BAA21541.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB71421.1 AAB7334.1 AAB73377.1 BAA33377.1 BAA33377.1 BAA33377.1 BAA33377.1 AAC78921.1 AAC78921.1 AAC78921.1	SEQ ID NO. AAG35777.1 alboglabra AAB53694.1 BAAC2681.1 BAB520886.1 AAF88067.1 CAA94534.1 CAA05081.1 BAA13524.1 CAA05081.1 BAAC32111.1
Pisum sativum Triticum aestivum Brassica juncea Sorghum bicolor Brassica juncea Zea mays Oryza sativa Zea mays Sorghum bicolor Sorghum bicolor Sorghum bicolor Sea mays Zea mays Zea mays Wesembryanthemum crystallinum Picea abies Vanilla planifolia	Petunia x hybrida Pelargonium x hortorum Prunus persica Prunus armeniaca Pelargonium x hortorum Citrus sinensis Prunus mume Nicotiana glutinosa Nicotiana glutinosa Petunia x hybrida Betula pendula Nicotiana tabacum
D64037 AJ007705 AJ223496 X59925 AJ223497 X61489 AF271995 X15239 X65137 X55664 AB012228 X15238 X15238 X1542 X15238 X1542 X14588 AF159051 X87149 X87149 X87149 AF106954 AJ237694 AJ237694 AF178569	L21978 U07953 X77232 AF129073 AF026793 U67861 AE321533 AB031027 U54565 U62764 L21976 Y10749 246349
BAA10902.1 CAA07610.1 CAA11414.1 CAA42549.1 CAA43709.1 AAG00180.1 CAA46267.1 CAA39197.1 BAA28170.1 CAA3663.1 CAA3663.1 CAA36626.1 CAA36627.1 CAA60626.1 CAA60626.1 CAA60626.1 CAA60627.1 CAA60626.1 CAA60627.1 CAA60627.1 CAA60626.1 CAA60626.1 CAA60627.1 CAA60627.1 CAA60627.1 CAA60627.1	AAA33697.1 AAA33697.1 CAA54449.1 AAF36483.1 AAC33524.1 AAB70884.1 AAB70884.1 AAB70884.1 AAB70850.1 AAA99792.1 AAA99792.1 AAA99792.1 AAA99792.1 AAA86468.1

BAA05546.1 BAA04864.1	D26547 D21836	Oryza sativa Oryza sativa	AAA51643.1 AAA87456.1	M23120 U22147	Nicotiana plumbaginifolia Hevea brasiliensis
AAB51522.1	U92541	Oryza sativa	CAB38443.1	AJ133470	Hevea brasiliensis Incompanion econleptum
AAD49232.1	AF159387	Lolium perenne	AAAU3618.1	M80608	bycoperation escurencial
AAD56954.1	AF186240	Secale cereale	AAA18928.1	OOTAGE	Solanum tubelosum
AAD49231.1	AF159386	Secale cereale	AAC19114.1	AE067863	Solanum tuberosum
1 08230 1	AF159385	Hordeum bulbosum	CAA92278.1	268154	cossyptum nirsucum
1.02265000	DF159389	Phalaris coerulescens	AAG24921.1	AF311749	Hevea brasiliensis
1.1000004.	AF159388	Phalaris coerulescens	AAA63539.1	M60402	Nicotiana tabacum
AAD49233.1	AP000412	Orvza sativa	AAA63540.1	M60403	Nicotiana tabacum
DABS3311.1		Chlamydomonas reinhardtii	AAA88794.1	00100	Solanum tuberosum
CAROUSON. 1	72000	Chlamydomonas reinhardtii	AAA63541.1	M59442	Nicotiana tabacum
CAMBOOBOLL	A60007	Hove brasiliensis	AAB82772.2	AF001523	Musa acuminata
1.000000	VE1462	Spinacia oleracea	CAA37289.1	X53129	Phaseolus vulgaris
CAA35826.1	701107 VE1462	מסטבים כיסיייט	AAF08679.1	AF004838	Musa acuminata
CAA35827.1	X31403	Diametra Orong	AAD33881.1	AF141654	Nicotiana tabacum
CAA45098.1	X6333/	מוויין מפרביטוווו מפרביטוווו מפרביטוווו מפרביטוווו	AAD33880.1	AF141653	Nicotiana tabacum
AAC49357.1			AAA34082.1	M20620	Nicotiana tabacum
AAC19392.1		כווכווות	AAA19111.1	U01902	Solanum tuberosum
AAC04671.1	AFOIBI / 4	Brassica napus	CAA57255 1	X81560	Nicotiana tabacum
AAB47556.1	087141	ryantnemm	DD34053 1	M60464	
CAA53900.1	X76269	Fisum sativum	1.00010111	F 7 7 6 5 W	
AAC49358.1	U35831	Pisum sativum	AAA65542.1	307440 011410	
CAA33082.1	X14959	Spinacia oleracea	AABZ4898.1	8214/9	Madiana artius subsp. satius
CAA06736.1	AJ005841	Oryza sativa	AAB41551.1	02/1/9	tva subsp.
CAA55398.1	X78821	Chlamydomonas reinhardtii	AAD10384.1	072253	
CAA56851.1	X8088	Chlamydomonas reinhardtii	AAA03617.1	M80604	Lycopersicon esculentum
CAA44209.1	X62335	Chlamydomonas reinhardtii			
Caa06735.1	AJ005840	Triticum aestivum		1739	
APR52409.1	U76831	Brassica napus	BAA19102.1	AB000408	
AAD45358.1	AF160870		AAC28973.1	U20736 p.7224894	Medicago sativa subsp. sativa Populus balsamifera subsp.
	6		trichocarpa		
• ,	T/28		CAA11496.1	AJ223621	Populus balsamifera subsp.
AAA92013.1	049454	Franca persica	11000000		•
CAA54952.1	X77990	u	Trichocarpa	36660034	Micotiana tahacim
DDF33405.1	AF230109	Populus x canescens	AABSU931.1	AE U 22 / / 3	וודכסרדמוום רמסמרמיי
1 900001111	M37753	Glycine max	CAA83943.1	Z33878	Petroselinum crispum
1.00000440	נפטטטדע	Citrus sinensis	AAA33851.1	M69184	Petroselinum crispum
CAMUSSUG. 1	A00000E	Vitia winifera	CAA90894.1	Z54183	Petroselinum crispum
CABSIDD4.1	AUC / / 200	Cluster white the	CAA90969.1	Z54233	Vitis vinifera
AAB03301.1	041363 M63634	Nicotiana plumbaqinifolia	AAA59389.1	013151	Zinnia elegans
AAA34076.1	10000X		CAB05369.1	Z82982	Nicotiana tabacum
CAMBUCALL	707				

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Populus nigra	Zea mays	Glycine max	Glycine max	Oryza sativa	Zea mays	Lycopersicon esculentum	Brassica napus	Oryza sativa	Oryza sativa	Nicotiana tabacum	Nicotiana tabacum	Oryza sativa	Catharanthus roseus	Oryza sativa			Lycopersicon esculentum	Brassica oleracea	Oryza sativa	Oryza sativa	Malus x domestica				Brassica juncea	Vitis vinifera	Nicotiana tabacum	Glycine max	Glycine max	Pisum sativum		Nicotiana tabacum	Nicotlana tabacum	Zea mays	Pisum sativum	Oryza sativa	Oryza sativa	Spinacia oleracea	rapa subsp.	Brassica rapa
AB041504	AF023165	AF249318	AF249317	69000	067422	U28007	AY028699	AC073405	AF172282	AF302082	AF142596	AJ243961	273295	AP000559	AP000391	AF220603	059316	218921	L27821	AP002071	AF053127		1742	AF349449	AF109694	AF019907	X76293	AF105199	L11632	x60373	96606X	X76533	X76455	AJ006055	X98274	D85751	AB009592	D37870	AF255651	AF008441
BAA94510.1	AAC27895.1	AAF91337.1	AAF91336.1	CAB51834.1	AAB09771.1	AAC61805.1	AAK21965.1	AAG03090.1	AAE34428.1	AAG25966.1	AAF66615.1	CAB51836.1	CAA97692.1	BAA84787.1	BAA83373.1	AAF76313.1	AAB47421.1	CAA79355.1	AAA33915.1	BAA95893.1	AAC36318.1			AAK27157.1	AAD28177.1	AAB70837.1	CAA53925.1	AAF26175.1	AAA33962.1	CAA42921.1	CAA62482.1	CAA54043.1	CAA53993.1	CAA06835.1	CAA66924.1	BAA36283.1	BAA37092.1	BAA07108.1	AAF67753.1	AAC49980.2
Populus tremuloides	Mesembryanthemum crystallinum	Populus balsamifera subsp.		Populus balsamifera subsp.	•	Populus balsamifera subsp.	•	Eucalvotus globulus	Populus tomentosa	Nicotiana tabacum	V.	Nicotiana tabacum		Nicotiana tabacum		Eucalvotus globulus	Nicotiana tabacum	- ()	Populus alba x Populus		Zea mays	Zea mays	Stellaria longipes	Citrus natsudaidai	Oryza sativa	Oryza sativa	Oryza sativa	Populus balsamifera subsp.	•	Eucalyptus globulus					Oryza sativa	Lophopyrum elongatum	Lophopyrum elongatum	Brassica napus		Populus nigra
027116	AF053553	AJ224896		AJ224895		AJ223620		AF168780	AF240466	1138612	Y12228	062736	AB023482	,	U62734	AF046122	062735	σ	AF327458		AJ242981	AJ242980	L22203	AB035144	AP000364	AP000364	AP000364	AJ130841		AF168778	AF168779	AF060180		1741	AB023482	AF131222	AE339747	AX007545	AF023164	AB041503
ורפאטאמממ	1.3000044	CAA12200.1	trichocarda	CAA12199.1	trichocarda	CAA11495.1	trichocarda	ABD50443 1	1.05405444	1 5 1 6 6 7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	C1007047	L 9166744	HAD 78733 1	CAA91228.1	AAC49914.1	DAC26191.1	AAC49915.1	1.05000044	DAK16714 1	בייניסייים ביי	CAB45150.1	CAB45149.1	AAB61680.1	BAA88234.1	BAA81776.1	BAA81774.1	1.7771844B	CAA10217.1	trichocarpa	AAD50441.1	AAD50442.1	1.79051744	***	SEC TO NO. 1		AAF43496.1	AAK11674.1	AAG16628.1	AAC27894.1	BAA94509.1

Nicotiana excelsior Orvza sativa	Ø	Mesembryanthemum crystalli:	Solanum tuberosum	Oryza sativa	Craterostigma plantagineum		• •	Cucumis sativus			Oryza sativa	Prassica nabus		Oryza sativa	Brassica napus	Oryza sativa	Orvza sativa		en i teo	יול אם מערד אם	,	antirrhinum maius		•	Phaseolus vulgaris	Brassica oleracea	Zea mays	Trompea trifida						Brassica oleracea	Brassica oleracea	Brassica oleracea	Brassica rapa	Brassica oleracea	Brassica napus	Brassica napus subsp. napus	Brassica oleracea
AB002147	1160149	U73467	Y18311	AB009665	AJ001292	,	1746	AJ133371		1747	AP002899	130300		AP001633	U39319	AP001633	AP001633	AP001633	00010044	APUUL633	1749	V06753	201064	1750	AE078082	Y12531	1182481	870000	05000	112330	X38220	000443	X14285	X18260	M76647	AB032473	AB000970	X14286	M97667	AJ245479	X18259
BAA20074.1	BARGIGZU.I	AAB18228.1	CAB46350.1	BAA24016.1	CAA04652.1		SEQ ID NO. 1	CAB76364.1		SEC ID NO. 1		DADZ1133.1	AAC42101.1	BAA94228.1	AAC49182.1	ן אבטיסיים	1.002100440	DAR54217.1	DHA9424-1	BAA94215.1	ON OF ORG		CAAboub4.1	SEQ ID NO.	AAD21872.1	CDD73134 1	112222111	1.5000000	AAC23342.1	CAA/3133.1	CAA67145.1	AAA62232.1	CAA74661.1	CAB41879.1	AAA33000.1	BAA92836.1	BAA23676.1	CAA74662.1	AAA33008.1	CAB89179.1	CAB41878.1
Mesembryanthemum crystallinum	Betula pendula	Glycine max	Glycine max	Vigna ungulculata	Brassica juncea Curumia sativus	Twonersion esculentum				Secale cereare	Ipomoea nil	Oryza sativa	Orvza sativa			Tycopersicon escurentum	Triticum aestivum	Zea mays	Nicotiana tabacum	Lycopersicon esculentum	Euphorbia esula	Picea mariana	Triticum aestivum			Glycine max	Oryza sativa	Zea mays	Oryza sativa	Glycine max	Chloronlast Glycine max		מבי וועלם	Daucus caroca			Locus Japonicus	Fishin saltvani	Oryza sativa	Nicotiana cabacum	Pyrus communis
AJ400816	AJ279690	AF074940	S70187	AF181096	AF109695	14134E	L41343		C#/T	230243	M99431	AB037681	000114	076117	L14594	M96549	055859	S59780	x63195	AF123259	AF221856	AF051230	055860		1/44	AF135862	AB042521	L33913	D78573	DE049708	9070704	Ar049700	133912	L11529		1745	AF275316	AJ243308	D17443	AJ237751	AF139816 AB058679
CAC13956.1	CAB66332.1	AAC26053.1	AAB30526.1	AAD53185.1	AAD28178.1	BAAUS4UB.1	AAC41654.1			CAA82945.1	AAA33748.1	PAD90487 1		CAA77978.1	AAA16785.1	AAB01376.1	AAD11549.1	AAB26482.2	L 7787747	1.1.2005044	AAE31705.1	1 15125744	AAD11550.1			AAD41796.1	BAA95630.1	DAD74361.1	C101148	1	AAC03903.1	AACUSSBI.I	AAA74360.1	AAA16972.1			AAF82791.1	CAB45652.1	BAA04257.1	CAB40742.1	AAF61465.1 BAB40142.1

Picea abies Pisum sativum			Oryza sativa		Picea mariana	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Brassica oleracea	Lycopersicon esculentum	Malus x domestica	Oryza sativa	Oryza sativa	Ceratopteris richardii	Nicotiana tabacum	esculentum	Ceratopteris richardii	Malus x domestica ∞	Glycine max	Dendrobium grex Madame Thong-In			Pisum sativum	Nicotiana sylvestris	Oryza sativa	Nicotiana sylvestris	Sorghum bicolor	Hordeum vulgare	Triticum aestivum	Sorghum bicolor	Hordeum vulgare	Brassica napus	Zea mays	Daucus carota	Sinapis alba	Nicotiana sylvestris	Nicotiana glutinosa	Orvza sativa	
AE063248	1100002	AF063307	D16507	AF308454	180061	AF050180	AB028885	AB028883	AB007624	AF193813	U76407	271978	AB016071	AB007623	AB043954	AB025713	U76408	AB043956	271979	L13663	AJ276389		1759	U81287	028862	AJ002894	D26182	X57662	049482	032310	AF310215	248624	214143	AF034945	X58146	L31377	D16205	AF005359	AF010579	1
AAC84001.1	AACSSOOG.1	AAC32262.1	BAA03959.1	AAG27464.1	AAD00691.1	AAC32817.1	BAA79226.1	BAA79224.1	BAA77818.1	AAF23753.2	AAD00251.1	CAA96510.1	BAA31688.1	BAA77817.1	BAB18582.1	BAA76903.1	AAD00252.1	BAB18584.1	CAA96511.1	AAA20882.1	CAB88029.1		SEQ ID NO.	AAB71417.1	BAA22083.1	CAA05729.1	BAA05170.1	CAA40862.1	AAB07749.1	AAA75104.1	AAG23220.1	CAA88558.1	CAA78513.1	AAB88616.1	CAA41152.1	AAA59213.1	BAA03742.1	AAC50020.1	AAB66884.1	***
0	ra	Brassica rapa Drassica oleradea		bracelos rada		۲ ۲ ۱	Brooston napils	Dracotta manis		Organ cativa	Donilis nigra	Orva sativa	34,350 34,540		Vitis ribaria			Cansicum chacoense	Solanım tiberosum			Malus x domestica	Nicotiana tabacim	Tycopersicon esculentum	Lycoperation esculentum	Orvza sativa	Ceratopteris richardii	g	្តជ	Orvza sativa	Orwza sativa	Hordenm vnlgare	Hrittens apativn	Nicotiana rabacum	Frition postivnim	Timoneral on esculentum	Nicotian tabacim	NICOLIAMA CADACUM	בדרוכת בפסגדימניי	zea mays
218921	D88193	D30049	AB032474	ABUS4U61	100004	D30303	AFOOOGO	A10201A	A100.40	AC0/3403	AU243361	100701	770/70	1753	1,33 a5220406	20107714	1755	AF202179	A.E.O.E.E.O.E.	POOTTOOK	1758	021480	10000a	AB004 797	DE000142	D49704	DB043957	1176410	229073	210022 DB007628	ABOO7629	0201004 000004	AE 02230	AE 224433	00000000000000000000000000000000000000	AF224300	AF 000141	AB004/85	0644773W	Arion455
CAA79355.1	BAA21132.1	BAA06285.1	BAA92837.1	BAB21001.1	BAA0/5//.2	BAA0/5/6.1	AAD52097.1	AAK21965.1	AAGI 6628.1	AAGU3U9U.I	CABSIBSO.I	BAR94309.1	AAASSATS. I		SEQ ID NO. 1	AME 3/20/.1	CEO ID NO	٠,	AAE 09230.1	CAB50/86.1	. ON at one	. ,	CAMSOSIZ. I	BAA23921.1	AADU3382.1	AAC43310.1	1.2000000	1.62600044	1.0000000	CAM02314.1	1.220//WHG	BAA / 623.1	AABOIO/9.1	AAE 32399. I	ביטניסיקה בי	AAE 32400.1	AAC49917.1	BAA25546.1	AAE 32330.1	AAD13611.1

Papaver somniferum		Musa acuminata		Musa acuminata	Musa acuminata	Zinnia elegans	Fragaria x ananassa	Medicago sativa	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum			Volvox carteri f. nagariensis	reir	Chlamydomonas reinhardtii		rritionm aestivum 6	writtenm turgidum subsp. durum	turgidum subsp.				Triticum turgidum subsp. durum		Oryza sativa	Nicotiana tabacum		anderles to the in	ALCOLISING CODOCCOM		שיים שיים מדיים	Solanum fuherosum	Mine tabelin	NICOLIANA CADACAM	VICES VIIIICEER Modicago trinoatila	Heartcayo cramoacara	hycopersicon escurentum
AF025430	1766	AF206320	AF243475	AF206319	X92943	Y09541	063550	U41472	x67158	x61102	x61101	x67159	1	1767	AF110784	DE03534	DE02223	AE12122	ME 131223	075770	AU211319	1141385	211499	AJ277380	AJ277378	AB047268	AB039278	X11209	,	1/69	AF215852	AF21583/	AFZIJBJI	AFZ15854	AECLUOUU	X66856	AJUUIUGI	U38651 646616	AJ010942
AAC61839.1	SEQ ID NO. 1	AAF19196.1	AAF63756.1	AAF19195.1	CAA63496.1	CAA70735.1	AAB71208.1	AAA86241.1	CA247630 1	1.000/FMG	Chr43413.1	CAR40410.1	T.TCD/ EWWO	, ON OT OTO		1.00000044	AAD02069.1	AAC43030.1	AADZ8260.1	AAALYOOU.1	CAC21230.1	CACC1220.1	CAA77575.1	CAC21231.1	CAC21229.1	BAB16780.1	BAA92322.1	CAA72092.1			AAE74566.1	AAG43998.1	AAE74565.1	AAE74568.1	AAE /456 / . 1	CAA47324.1	CAA04511.1	AAB06594.1	CAA09419.1
Sinapis alba	Oryza sativa	Euphorbia esuia Delargonium x hortorum			Original designation of the control		OLYES SECTOR	clycine max	Zea mays	Citrus unshiu	Nicotiana sylvestris	Euphorbia esula	Oryza sativa	Sorghum bicolor	Oryza sativa	Medicago sativa	Triticum aestivum	Nicotiana sylvestris	Nicotiana plumbaginifolia	Spinacia oleracea	•		Alnus glutinosa	Triticum aestrum		nate of one form	netherra accidination	Recharding californica	- 2	•		Oryza sativa	Nicotiana tabacum	Glycine max			Berberis stolonifera	Eschscholzia californica	Eschscholzia californica
L31374	AJ002893	AF036339	Arooooa	Ar 009005	D16204	Aronos	AE'OUS411	AF169205	X61121	AB007819	D16206	AF031933	AF011331	X57663	AF001894	AF191305	AF315811	D83696	X65117	.034742		1760	X08680	AF022915	•	1762	AF04934 /	どもちつじしょう	AF003633		1763	PD002094	AF123503	X60033		1765	AF049347	565550	AE005655
AAA59212.1	CAA05728.1	AAC61786.1	AAB63582.1	AAB63581.1	BAA03741.1	AAB66885.1	AAB63589.1	AAD48471.1	CAA43431.1	BAA92156.1	BAA03743.1	AAC61787.1	AAB65412.1	CAA40863.1	AAB61213.1	AAF06329.1	AAK01176.1	BAN12064.1	CAA46233.1	1.579045.1	1.0100	SEQ ID NO. 1	CAA69936.1	AAB80947.1			AAD17487.1	AAB20352.1	AAC39358.1	AACOTOOS	ON OF ORO		DAMS 0221.1	Caa42636.1		ON OIL OBS		1 05000044	AAC39358.1

1 00203040	ACCCE 17.0	Incomersion esculentum	AAC97157.1	U69482	Picea mariana
CAB32003.1		Vitis vinifera	AAC97146.1	046582	Picea mariana
1.1.101040	PBO508 5		AAD09342.1	AF023615	Pinus radiata
1.5003447		Œ	AAF04972.1	AF091458	Oryza sativa
CAR08013.1	X55349	Chlorella kessleri	AAK21254.1	AF335241	Petunia x hybrida
1.000000000	X75440	Chlorella kessleri	AAB00081.1	L46400	Zea mays
BAB19863 1	AB052884	Orvza sativa	AAD10626.1	AF035379	Lolium temulentum
1.00001000	283829		CAB97354.1	AJ249146	Hordeum vulgare
CABOOCO 1	720C07		AAA99964.1	L37528	Oryza sativa
DABLEOGZ.1	AF173655	Seta vilgaris	AAD10625.1	AF035378	Lolium temulentum
יייייייייייייייייייייייייייייייייייייי	A.T1 32223	Ivcopersion esculentum	AAB64250.1	U78782	Oryza sativa
CAB32000.1	AP000615				
1.00000000	A.T132225	Lycopersicon esculentum	SEQ ID NO.	1778	
C. 0.000000	0777CT 4		CAA56123.1	X79675	Nicotiana tabacum
CACC6219.1	##/0070W	Modicaco trupcatula	CAA51273.2	X72743	Populus x generosa
AAB61347.1	A 5 C C C C C C C		AAA73555.1	L36436	Glycine max
•	##00003#		AAA34264.1	M60599	Triticum aestivum
AAK01938.1	AIU20321	Mine arous	AAA34263.1	M60598	Triticum aestivum
BAB21562.1	AB042951	Nicotiana Labacum	AAB04021.1	U61730	Coix lacryma-jobi
9	272		AAF44718.1	177616	Oryza sativa
	7//7	400 00000	CAA37038.1	X52850	Zea mays
BABUSISS.1	AF002533 AP002521		CAA55659.1	0906LX	Nicotiana sylvestris
				,	
SEQ ID NO.	1776		SEQ ID NO.	1780	
_	025696	Sinapis alba	AAD09343.1	AF026538	Hordeum vulgare
CAA53782.1	X76188	Nicotiana tabacum		-	
AAC33475.1	AF082531	Pimpinella brachycarpa		1783	
DAK21257.1	4	Petunia x hybrida	AAC49528.1	056834	
		Petunia x hybrida	AAC49527.1	048831	
AAK21252.1	AF335239	Petunia x hybrida	AAD27591.1	AF121354	Petroselinum crispum
AAG43199.1	AF112148	Zea mays		1	
AAK21253.1	AF335240	Petunia x hybrida		1785	
BAA81886.1	AB003328	Oryza sativa	AAG35658.1	AF204925	Petroselinum crispum
1 89051344	AF207699	Elaeis quineensis	BAA87058.1	AB028022	
1.00001344	AF141965	Orvza sativa	BAA86031.1	AB026890	Nicotiana tabacum
1.60000.1	1176726	Pinus radiata	AAD16139.1	AE096299	Nicotiana tabacum
1.00000004	35112150		BAA77383.1	AB020590	Nicotiana tabacum
PAG43200.1	DE022665	Gnetum parvifolium	AAF23898.1	AF193802	Oryza sativa
ניסטטטענם	A.T011675	Orvza gativa	AAD55974.1	AF121353	Petroselinum crispum
CAB36600.1	A501107.5	Dinns resinosa	BAA82107.1	AB022693	Nicotiana tabacum
AADO1260.1	75000210		BAB16432.1	AB041520	Nicotiana tabacum
AAC9/IS8.1	002400	בוכבס וומדדמווס		,	

Zea mays Zea mays Agrostemma githago Agrostemma githago Oryza sativa Cichorium intybus	Chlorella vulgaris Zea mays Zea mays Avena strigosa Hordeum chilense Hordeum stenostachys	Camptotheca acuminata Camptotheca acuminata Oryza sativa Zea mays Zea mays Chlamydomonas reinhardtii	Mitochondrion Marchantia Fuchsia hybrid cultivar Qiu Fuchsia hybrid cultivar Qiu	Cucurbita maxima Lycopersicon esculentum Hordeum vulgare Taxus cuspidata Sorghum bicolor Cicer arietinum Cicer arietinum Glycyrrhiza echinata Glycyrrhiza echinata
M27821 M77792 U64310 U64309 X15819 X84102	L23033 X56771 X64446 AF077372 L40147 L40153 L40153	1793 AE042321 AE042320 AB003491 M76685 M76684	1797 M68929 AF287344 AF287343	1799 AF212991 U54770 AF326277 AF318211 U74319 AJ238439 AJ012581 AB001379
AAA33483.1 AAA33483.1 AAB39555.1 AAB39554.1 CAA33817.1 CAA58908.1	AAA33998.1 CAA40090.1 CAA45776.1 AAD17694.1 AAA96242.1 AAA96250.1 AAA96245.1	SEQ ID NO. AAB97526.1 AAB97087.1 BAA19928.1 AAA33491.1 AAA33490.1 AAA33490.1	NO. 114.1 orpha 322.1	94208 SEQ ID NO. AAG41777.1 AARK11616.1 AAK00946.1 AAC49659.1 CAB41490.1 CAA10067.1 BAA22422.1
Nicotiana tabacum Petroselinum crispum Nicotiana tabacum Petroselinum crispum Nicotiana tabacum	Brassica napus Brassica napus Lycopersicon esculentum Petunia x hybrida Ricinus communis Nicotiana tabacum	330050	Cichorium intypus Glycine max Glycine max Hordeum vulgare Glycine max Phaseolus vulgaris	Zea mays Rordeum vulgare Glycine max Zea mays Hordeum vulgare Chlamydomonas reinhardtii Volvox carteri Chlorella vulgaris Chlorella vulgaris Nicotiana tabacum Spinacia oleracea Agrostenma githago
AF096298 AF121354 AF193771 AF204926 AF193770	1786 D38220 D38219 X14060 L11563 AF314093 X14059 X14058	M33154 U95317 U76701 M32600 D86226 X54097 X80670	X84103 AF055369 U13987 X57845 L23854 X53603	AF153448 X57844 AF022780 U20450 X60173 AF203033 X64136 U39931 U08029
AAD16138.1 AAD27591.1 AAF61864.1 AAG35659.1 AAF61863.1	SEQ ID NO. 1 BAA07395.1 BAA07394.1 CAA32218.1 AAA33712.1 AAG30576.1 CAA32217.1	AAB33114.1 AAB52786.1 AAB18985.1 AAA34033.1 BAA13047.1 CAA38031.1 CAA56696.1	CAA58909.1 AAD19790.1 AAA96813.1 CAA40976.1 AAA9672.1 CAA37672.1	CAA53819.1 AAD38068.1 CAA40975.1 AAB93560.1 AAF17595.1 CAA42739.1 AAF17595.1 CAA42497.1 AAC49460.1 AAC49460.1 AAC49460.1 AAC49460.1 AAC49459.1 AAC49459.1

Vitis vinifera Vitis vinifera Vitis vinifera

AB047098 AB047096

BAB41025.1 BAB41023.1

BAB41019.1 AAB81682.1

Catharanthus roseus

AJ238612 **AF124815**

233875

CAA83941.1 CAB56503.1 AAD44150.1 CAB43505.1

Cicer arietinum Cicer arietinum

Mentha spicata

Mentha x piperita

BAB41022.1

/1tis vinifera Vitis vinifera Vitis vinifera

AB047095 AB047092 AF000371 Vitis labrusca x Vitis vin

Vitis vinifera Vitis vinifera

AB047099

BAB41026.1 BAB41024.1 BAB41018.1

BAB41021.1

Triticum aestivum

Vigna radiata

AF195809 AF195818

AJ249800 4B036772

CAB56742.1 BAB40322.1

1239051

AB047094

AB047097

AB047091

Perilla frutescens

AB002818

AB027454 AF028237

BAA89008.1 AAB86473.1

Trifolium repens

Glycine max Glycine max

AF195819

AAB94591.1

Glycine max

Lotus japonicus

AB025016

AF195815 AF135484 AF022462

AAF34536.1 AAD38929.1

AF195812

AAF45142.1

AAF34530.1

AAF34533.1 BAA93634.1

Pisum sativum

Glycine max

Trifolium pratense

frifolium pratense

AF195810

AF195808

AAF34529.1

AF195811

AAF34532.1 AAF34531.1

AAE45143.1

Vigna radiata

BAA19659.1

Oryza sativa

AF001894

AAB61213.1

Vitis vinifera

AB047093

3AB41020.1

			42	2
Petunia x hybrida	Sinapis alba	Brassica napus	Sorghum bicolor	Orvza sativa
Ipomoea purpurea	Sinapis alba	Sorghum bicolor	Daucus carota	

SEQ ID NO. AAA59212.1 AAA59213.1 CAA78513.1 CAA40862.1 AAG623220.1 CAA41152.1 AAB63582.1 AAB63582.1 AAB63581.1 AAB63581.1 AAB671.1 AAA75104.1 BAA75104.1 BAA75104.1 BAA675104.1 AAB63589.1 CAA863589.1 AAB63589.1 AAB63589.1	1807 L31374 L31377 214143 X57662 AF310215 X58146 AF009003 AF009004 AF009003 AF169205 U49482 D16204 Z48624 AF036339 U32310 AB007819 D16205 AF005359 AF005359 AF005359 AF005359	Sinapis alba Sinapis alba Brassica napus Sorghum bicolor Sorghum bicolor Daucus carota Oryza sativa Pelargonium x hortorum Glycine max Hordeum vulgare Nicotiana sylvestris Hordeum vulgare Euphorbia esula Triticum aestivum Citrus unshiu Nicotiana sylvestris Nicotiana sylvestris Oryza sativa Oryza sativa Oryza sativa
BAA03743.1 AAC61787.1	D16206 AF031933	
CAA43431.1	X61121	
AAB65412.1	AF011331	Oryza sativa
1 9198844	AF034945	Zea mavs

Vitis labrusca x Vitis vinife Dorotheanthus bellidiformis Lycopersicon esculentum Scutellaria baicalensis Forsythia x intermedia Catharanthus roseus Perilla frutescens Perilla frutescens Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Verbena x hybrida Petunia x hybrida Nicotiana tabacum Nicotiana tabacum Gentiana triflora Sorghum bicolor /itis vinifera Brassica napus Vigna radiata Citrus unshiu AB047090 AF000372 AF127218 AF346432 AF195807 AF190634 AB013598 AB027455 AB033758 AF199453 AB031274 AB013596 AF287143 AB013597 AF346431 L19074 32644 032643 X85138 085186 X18871 AAE34528.1 SEQ ID NO. AAF61647.1 AAK28303.1 BAA83484.1 AAD21086.1 AAB36652.1 AAK28304.1 AAA17732.1 BAA36421.1 AAB36653.1 CAA59450.1 CAB56231.1 BAB41017.1 BAA36423.1 BAA89009.1 AAF98390.1 AAF17077.1 BAA12737.1 BAA93039.1 BAA36422.1

Oryza sativa Lycopersicon esculentum	and history on the war			כד	Limnanthes douglasi1		Sorghim bicolor	Nicotiana tabagum		Diagram mapus	Citrus unsuru	Petunia x hybrida		Vitis labrusca x Vitis vinitera	icalensis		vinifera			Vitis vinifera		Vitis vinifera	Vitis vinifera	termedia		Vitis vinifera	Vitis vinifera	Verbena x hybrida	<u>u</u>		Nicotiana tabacum	Zea mays	Nicotiana tabacum	Nicotiana tabacum	Zea mays	Zea mays	Zea mays	ı
AB056063 X71900	1811	580863 D49385	D49384	D49383	AE247133	1010	. 710T	AF 1994JJ	AF 190034	AE 26 / 143	AB033758	AB027455	AB013596	AB047091	AB031274	AB047099	AB047097	AB047093	AB047095	AB047092	AB047098	AB047096	AB047094	AF127218	AB047090	AF000371	AF000372	AB013598	AB013597	U32643	AF346432	X07937	U32644	AF346431	X13500	X07940	AF320086	
BAB32871.1 CAA50719.1		AAB506/9.1 BAA23136.1	BAA23135.1	BAA23134.1	AAG28599.1			AAEL/U//.l	AAE'01047.1	AAE98390.1	BAA93039.1	BAA89009.1	BAA36421.1	BAB41018.1	BAA83484.1	BAB41026.1	BAB41024.1	BAB41020.1	BAB41022.1	BAB41019.1	BAB41025.1	BAB41023.1	BAB41021.1	AAD21086.1	BAB41017.1	AAB81682.1	AAB81683.1	BAA36423.1	BAA36422.1	AAB36652.1	AAK28304.1	CAA30760.1	AAB36653.1	AAK28303.1	CAA31855 1	CAA30761.1	AAK16410.1	
Medicago sativa Nicotiana sylvestris	Triticum aestivum Oryza sativa	Pisum sativum	NICOLIANA SYLVESCEES		Phaseolus vulgaris	Pisum sativum	Solanum tuberosum	Hordeum vulgare	Hordeum vulgare	Triticum aestivum	Triticum aestivum	Lavatera thuringiaca	Dinne eviweatris	London mildare	Hordenm vilgare	not deduit variation	riding darker delienthus appulls	neltanting ammis		ocean biolon	SOLGILAN DECOROR	serychiic mas	SOLVILL DICCIC.	יופדינים מייינים מייינ	ted mayo	nordenm varyane			Definita x hybrida	Petunia x hybrida	Nicottana tabadam			Nicotians tabacum	NICOLIAIIA LADACAIII	Oryza sacıva	Oryza saczya	Oryza sactva
AF191305 D83696	AF315811 AJ002894	U81287	798870	000	1608 U54703	214145	069633	AF043093	AF181458	073211	1173210	D FO 4 5 8 4	ACC440051	AUZOSOTO SOCTO	AE043086	AFIBIAGE	AF1/2203	ACCIONA	A0002/41	AE 236067	011696	AF004807	COSEST	792047	067514	X36320	607CTV	0101	716077	116361	110707 t	AE 020423	00474	AE352/32	Ar.020424	AB056062	ABOSEOEU	ABUSEUEI
AAF06329.1 BAA12064.1	AAK01176.1 CAA05729.1	AAB71417.1	BAA22083.1		AABOO554.1	CAA78515.1	AAB53203.1	AAD02259.1	AAF01696.1	AAR18202.1	1,10001044	AMBIOZOT.1	AACU2669.1	CAB93666.1	AAD02252.1	AAF01699.1	AAD50291.1	CAA09421.1	CAA05/13.1	AAE'601/2.1	AAA19693.1	AAB71225.1	AAB05927.1	CAA63339.1	CAA33364.1	CAA669/U.1	CAA33363.1			AAA33/10.1	AAA33/09.1	AAC24195.1	AAB40606.1	AAK18620.1	AAC39483.1	BAB32870.1	BAB32868.1	BAB32869.1

CAB56231.1	X18871	Dorotheanthus bellidiformis	AAB19183.1	U41189	Chlamydomonas reinhardtii
	AF117267	Malus x domestica Petunia x hvbrida		1814	
BAA89006.1	AB002/434	Perilla frutescens	AAK14395.1	AE339732	
ו לברכותהם	D85186	Gentiana triflora	BAB20581.1	AE042268	Zea mays
	NE02837	Thomosa purpurea	BAB20580.1	AB042267	Zea mays
AAB804/3.1	AF 02023 /	Hordenn viilgare	BAB20579.1	AB042261	Zea mays
	F 0014		BAA85113.1	AB031012	Zea mays
	6.0		BAA82873.1	AB024291	Zea mays
SEQ ID NO. 1 AAB65822.1	055838 U55838	Populus tremula x Populus	BAB17300.1	AB042260	Zea mays
tremuloides			BAA/5255.1	AB004062	
AAC49785.1	U55837	Populus tremula x Populus	DAROJIIZ.1	AB032011	
tremuloides			1.20002000	05107044	
AAD29050.1	AF132855	Gossypium hirsutum	BAB41137.1	ABUDUTSU	
AAA86993.1	U19738	Flaveria linearis			
1 900000	AF132854	Gossypium hirsutum		STRI	
בינוסבסתעת	1108402	_	AAB62808.1	U71108	
1.2400342.1	T05403	Spinacia oleracea	AAB62807.1	U71107	Nicotiana tabacum
4	1,19255	Nicotiana tabacum	AAC34989.1	AF042333	
٠.	M0412E		AAC34951.1	U81312	Nicotiana tabacum
AAA34063.1	M94100	C	AAB04057.1	043683	Glycine max 5
٦.	75750	2 ,4	AAB70886.1	019669	Zea mays
AAABbyyy. I	000000	FIGVORIA DISCHE	AAC34988.1	AF042332	Oryza sativa subsp. japonica
AAA34026.1	C67/7W	Ditilacia Oreracea	AAC04265.1	AF045570	Zea mays
AAA33652.1	M0.2027	THOUSE SECTION	AAC35787.1	AF053766	Nicotiana tabacum
α.	AF139464	Vigna raurata Dinoria linearis	AAB49338.1	060755	Triticum aestivum
٦,	019/40 4 40001	Classicates	AAB37769.1	U60754	Triticum aestivum
CAB43571.1	AUZSYLSZ	GLYCLIIG Man	AAB62812.1	U81313	Ricinus communis
CAA63/12.1	X93312	מייים מפרדים	AAF61950.1	AF237633	Spinacia oleracea
AAA86944.1	008401	Ced mays	AAG59894.1	AF328858	Lycopersicon esculentum
,	AB016283	Oryza sativa			
-	AF182806	Oryza sarıva		7101	
AAA86943.1	008404	Oryza sativa		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	,
AAA86945.1	U08403	Zea mays	AAB26960.1	063/26	GLYCLIIE Max
AAA69027.1	U19739	Urochloa panicoides		,	
1 80003444	119741	Urochloa panicoides	SEQ ID NO.	1818	
1 5020204.1 1 1 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AB009887	Nicotiana tabacum	AAC36699.1	AF075581	
	DE195204		AAC36697.1	AF075579	Mesembryanthemum crystallinum
٠.	50305114	TO COMPANY OF DATE	AAD17804.1	AF092431	Lotus japonicus
_	04880		10350	A.T277086	Nicotiana tabacum
_	080805		CAC10338.1	A777774	Facility of the solution of th
_	080804	Chlamydomonas reinhardtii	CABSU034.1	FF///70W	N. Ootlon Traction
AAB19184.1	U41190	Chlamydomonas reinhardtii	CACIO359.I	AUZ 1 108 1	NICOLIAMA CADACAM

Sorghum bicolor Sorghum bicolor Oryza sativa Zea mays Oryza sativa Oryza sativa Triticum aestivum Oryza sativa Cryza sativa Triticum aestivum Oryza sativa Cucumis sativus		Oryza sativa Vicia faba Glycine max Nicotiana tabacum Chlamydomonas eugametos Triticum aestivum Triticum aestivum Glycine max Oryza sativa Nicotiana tabacum
1831 Y12464 Y12465 AF004947 AF141378 AB011967 AB011968 AB111968 AF143743 X10036	D26602 X82548 X95997 AF062479 U83797 AJ007990 X65606 X65604 U55768 U73938 AJ005373 AB002109	ACO84763 AF186020 L38855 U73939 249233 U29095 M94726 226846 U69173 AP002913 D26015
	BAA05649.1 CAA57898.1 CAA65244.1 AAC99329.1 AAB52224.1 CAA46556.1 CAA46554.1 AAB05457.1 AAB05457.1 AAB05457.1 BAA19573.1	AAG60195.1 AAB68962.1 AAB68962.1 CAA89202.1 AAB58348.1 AAB6325.1 CAA81443.1 AAB80692.1 SEQ ID NO. BAB21205.1 BAB21205.1
Fagus sylvatica Mesembryanthemum crystallinum Lotus japonicus Mesembryanthemum crystallinum Medicago sativa Mesembryanthemum crystallinum Zea mays Zea mays Fagus sylvatica Oryza sativa	Fragaria x ananassa Fragaria x ananassa Brassica napus Lactuca sativa Oryza sativa Triticum aestivum Sorghum bicolor Triticum aestivum Triticum aestivum	Nicotiana plumbaginifolia Nicotiana plumbaginifolia Lycopersicon esculentum Zea mays Asparagus officinalis Zea mays Zea mays Zea mays Vitis vinifera Vitis vinifera Nicotiana plumbaginifolia Nicotiana plumbaginifolia Asparagus officinalis Chlorella sorokiniana Chlorella sorokiniana
AJ298987 AE097667 AE092432 AE079355 AE075580 Y11607 AF213455 U81960 AJ298988	1825 AJ297967 269596 X94225 AF162204 1826 AB025047 Y09291 U74319 Y09292 AJ251798	1827 AJ277950 Y08293 U48695 U93561 AJ011096 D49475 U93560 AJ303070 X86924 Y08292 AJ277949 AJ011006 X58831
CAC09575.1 AAD11430.1 AAD17805.1 AAC35951.1 AAC3698.1 CAA72341.1 AAC36700.1 AAG43835.1 AAC93835.1 AAC95576.1	SEQ ID NO. 1 CAC17011.1 CAA93442.1 CAA63919.1 AAF19789.1 SEQ ID NO. 7 BAA76438.1 CAA76475.1 CAA70476.1 CAA70476.1	SEQ ID NO. CAB94837.1 CAA69601.2 AAB39508.1 AAB51596.1 CAA09478.1 BAA08445.1 AAB51595.1 CAC18730.1 CAC18730.1 CAA60507.1 CAA694836.1 CAA69456.1

S	Brassica napus Brassica rapa Brassica napus Aegilops ventricosa Brassica napus Brassica oleracea	Hordeum vulgare Brassica napus Brassica napus Brassica rapa Triticum aestivum	Lycopersicon esculentum by Lycopersicon esculentum by Lycopersicon esculentum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium	ע ש	Vitis vinifera Pyrus pyrifolia Malus x domestica
AF113950 AF338960 AF107545 AF107547 AF325198	AF107550 AF338966 AF209500 AF158634 AF263318 AF338951 AJ302293	ACCOSTS ACCOST	AF053998 AF053993 AF053995 AF053996 AJ002236 U15936	AJ002236 AF053997 AJ002235 AJ002237 AP002539 AF166121 AL117265 U72723 U37133	1854 AF195653 AB006009 AJ243427
AAK18295.1 AAG43184.1 AAG43186.1 AAK20742.1	AAG43189.1 AAK18299.1 AAG40143.1 AAF19148.1 AAG52747.1 AAK18288.1		AAC78596.1 AAC78591.1 AAC78593.1 AAC78592.1 AAC78594.1 CAA05274.1	CAA05276.1 AAC78595.1 CAA05268.1 CAA05279.1 BAB08215.1 BAA96776.1 AAD50430.1 CAB55409.1 AAC80225.1	SEQ ID NO. AAF06346.1 BAA28872.1 CAC10270.1
Spinacia oleracea Nicotiana sylvestris Pisum sativum Zea mays Orvza sativa	Oryza sativa Oryza sativa Helianthus annuus Helianthus annuus	Brassica napus Brassica napus Brassica napus Brassica napus Avena sativa	Brassica napus Brassica napus Brassica napus Brassica napus Brassica napus Brassica napus	יהיהיס סטי	brassica napus Lactuca sativa Lactuca sativa Brassica oleracea Oryza sativa
X99937 D16247 AF271892 AF079782 AB042644	AB04264 AB04264 Y09057 AF18914	ω ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄	AF181728 AF181728 AF209494 AF209495 AF209489	AE209499 AE338954 AE107548 AE118127 AE113957 AF113948 AF107549 AF107549	AF263320 AF017752 AF017751 AF181729 AB019186
CAA68193.1 BAA03763.1 AAF75791.1 AAD20980.1		SEQ ID NO. 1 AAG40131.1 AAG40132.1 AAG40132.1 AAG31553.1 AAC31553.1	AAE14565.1 AAE14565.1 AAG40139.1 AAE36999.1 AAG40140.1	AAG40142.1 AAK18290.1 AAG43187.1 AAD27815.1 AAD27815.1 AAD03157.1 AAD03156.1 AAG43188.1 AAG43188.1	AAG52749.1 AAC02203.1 AAC02202.1 AAF14566.1 BAA75812.1

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AF016892 U80069 X73139 X53872 X55974 X17565 X87372 AF009734 AF170297 M37150 X14040 AJ250667 Y13610 AJ012739 AJ012691 AF054150	D01000 U34727 X17564 M63003 L19435 D00999 AF328859 L36320 D49485 M54936 X58578 AF034630 AJ307586 AJ002604 U34726	D49486 U69632 AB004870 U69536 AJ279694
AAB40394.1 CAA51654.1 CAA37866.1 CAA39444.1 CAB57992.1 CAA60826.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 AAB66812.1 CAA32199.1 CAA32199.1 CAA32199.1 CAA32199.1 CAA32199.1	BAA00800.1 AAB49913.1 CAB57993.1 AAA33659.1 AAC14464.1 BAAC0799.1 AAK06837.1 AAA33917.1 BAA19674.1 AAA33510.1 CAA41454.1 AAB87572.1 CAC34448.1 CAC34448.1	BAA19675.1 AAB67991.1 BAA24919.1 AAB67990.1 CAB66335.1
mestica ativa um tabacum fera apa a menziesii egans tabacum fera ria fera va va tabacum tabacum	Nicotiana tabacum Nicotiana tabacum Dryza sativa Nicotiana tabacum Slycine max Ricinus communis Nicotiana tabacum Dryza sativa subsp. japonica Zea mays Triticum aestivum Triticum aestivum Spinacia oleracea	sativus rapa subsp. pekinensis juncea juncea tremuloides
Malus x domestica Castanea sativa Prunus avium Nicotiana tabacum Vitis vinifera Oryza sativa Brassica rapa Pseudotsuga menzie Cestrum elegans Nicotiana tabacum Vitis vinifera Vitis riparia Vitis riparia Vitis riparia Vitis riparia Vitis rainifera Avena sativa Cicer arietinum Nicotiana tabacum Nicotiana tabacum	Nicotiana tabacum Nicotiana tabacum Oryza sativa Nicotiana tabacum Glycine max Ricinus communis Nicotiana tabacum Oryza sativa subsj Zea mays Triticum aestivum Triticum aestivum Triticum aestivum	Raphanus sa Brassica ra Brassica ju Brassica ju Populus tre
AF090143 AJ242828 U32440 AB000834 AF195654 AL442113 U71244 AJ131731 AB031870 AB029918 AF003007 AF178653 AF227324 U57787 U77657 AJ010501 X15224	1856 U71108 U71107 AF042333 U81312 U81313 AF042332 U79669 AF042376 AF045570 U60755 U60755	1857 AF009735 AF071112 X95728 X95726 AF016893
AAC36740.1 CAB62167.1 AAB38064.1 BAA74546.2 AAF06347.1 CAC09477.1 CAC09477.1 AAB95118.1 BAA95017.1 BAA95017.1 BAA95165.1 AAB61590.1 AAB61590.1 AAB62599.1 AAB62599.1 CAA09228.1 CAA33293.1	SEQ ID NO. 1 AAB62808.1 AAB62807.1 AAC34989.1 AAB62812.1 AAB62812.1 AAC35787.1 AAC35787.1 AAC34988.1 AAC34988.1 AAB49338.1 AAB49338.1 AAB37769.1	SEQ ID NO. AAD05576.1 AAC25568.1 CAA65043.1 CAA65041.1 AAD01605.1

			d Olyza saciva		Nicotiana Nicotiana			Manage of the second se					Meseulbryanthemum crystarii	Solanum tuberosum	Fishm sativum		Chlamydomonas	Chlamydomonas reinnardui		haultii		Sorghum bicolor	Sorghum bicolor	38 Oryza sativa		Nicoti	18 Zea mays	Cucumis sativus	13 Glycine max			Priticula apativim				,	3 NICOLIANA LAL	Perroselinum	4 Ferroselinum	Petroselinum crispum	Avena fatua
AF289237	D38452	AE009337	AFUULLES	AE051211	AE 06 / 61	U38446	,	TART	230329	/ TOO!	230330	AFUUZBID	230333	06606X	M92989	Z30332	AB042714	AB042715	AF143505	X97980	AP002481	X12465	X12464	AB011968	AB011967	D26602	AF141378	X10036	AF128443		1862	104400	004402	AFUSTRSB	(TROS	ABUZUUZ	056834	AF12135	058540	248429
AAG01179.1	BAA22410.1	AAC24961.1	BAA90814.1	AAC32116.1	AAD52092.1	AAE21450.1			CAB82852.1	CAA503/4.1	CAA82991.1	BAB03409.1	CAA82994.1	CAA62476.1	AAA50304.1	CAA82993.1	BAB18104.1	BAB18105.1	AAF66637.1	CAA66616.1	BAA96593.1	CAA73068.1	CAA73067.1	BAA83689.1	BAA83688.1	BAA05649.1	AAF22219.1	CAA71142.1	AAD23582.1		ON OIL OND	0 100 totte	AABUIU85.2	AAF32492.1		SEQ ID NO.	BAA77358.1	AAC49528.1	AAD27591.1	AAC49529.1	CAA88326.1
	Fragaria x ananassa	๙	Marchantia polymorpha	Marchantia polymorpha	Marchantia polymorpha	Zea mays	Tortula ruralis	Zea mays	Zea mays	Zea mays	Vigna radiata	Oryza sativa	Cucurbita pepo	Zea mays		Mesembryanthemum crystallinum	Glycine max	Glycine max		Nicotiana tabacim	Solanim tuberosiim	Solaniam caperosam	Ipomoea Darara	֓֞֝֝֝֝֜֜֝֝֝֝֝֝֝֝֝֝֝֝֝֝֝֡֝֝֝֝֡֝֝֝֝֝֝֝֝֡֝֝֝֡֝֝֝֡֝֝֡֝֝֝֡֝֝֡֝֝֡֝֝֡֝֡	Medicago saciva	Oryza sacitva	OLYZA SALIVA	Organia satinis	ממרל	Arachis nypogaea	Oryza sativa	Oryza sativa	Dunaliella tertiolecta	Chlamydomonas eugametos	Oryza sativa	Oryza sativa	Solanum tuberosum	Daucus carota	Zea mays	Zea mays	Zea mays
0 40	0.3.9 ∆₽∩35944	AB017517	AB017515	AB017516	AB017515	AJ007366	U82087	D84408	D87042	D85039	U08140	X81394	U90262	028376	127484	AF090835	•	1169174	11520	DEC. CO. K	AE0/2906	AETI3400	707780	Secon Second	X96/23	APOUDETS	Xalaya	Arogador Arogador	Ω .	X18055	AC073166	D13436	AF216527	Z49233	AE194414	AF194413	AF030879	X83869	D84508	582324	D84507
2	SEC ID NO. I	BAA81751.1	BAA81749.1	BAA81750.1	BAA81748.1	CAA07481.1	AAB70706.1	BAA12338.1		BAA12715.1	AAC49405.1	CAA57157.1	DAR49984.1	AAA69507.1	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	17800.1	1.0001.1 1.0001.1	ר הסאסממת	1.00000044	AAA33443.1	AAC25423.1	AAD28192.2	BAA13440.1	CAA39936.1	CAA65500.1	BAA85396.1		AAC05270.1	•	CAB46228.1	•	BAA02698.1	AAF21062.1	CAA89202.1	AAF23901.2		AAC78558.1	CAA58750.1	BAA12692.1	AAB47181.1	BAA12691.1

ica	pekin	429	
Capsicum annuum Glycyrrhiza echinata Catharanthus roseus Zea mays Zea mays Triglochin maritimum Eschscholzia californica Helianthus tuberosus Helianthus tuberosus Persea americana	Brassica rapa subsp. Triticum aestivum Triticum aestivum Hordeum vulgare Hordeum vulgare Triticum aestivum	Triticum aestivum Triticum aestivum Triticum aestivum Secale cereale Triticum aestivum Hordeum vulgare Hordeum vulgare	Tulipa gesneriana Hordeum vulgare Hordeum vulgare Hordeum vulgare Tulipa gesneriana Pulipa gesneriana Tulipa gesneriana Tulipa gesneriana Tulipa gesneriana Tulipa gesneriana
AF122821 AB001379 L19074 X81829 Y11404 AF140609 AF014802 AJ000478 AJ000477	1870 AF090836 X70666 X96446 M19048 M19047	A23080 D84390 X96448 X70665 X96449 X96445 X05901 M23080	X81707 213008 136882 X05576 X81709 X81708 X81710 X96447 1872 AF132001 AF253970
AAE27282.1 BAA22422.1 AAA17732.1 CAA57423.1 CAA72208.1 AAF66543.1 AAC39454.1 CAA04117.1 CAA04116.1		AAB/113/.1 BAA12336.1 CAA65315.1 CAA65316.1 CAA65316.1 CAA65312.1 APA91048.1 CAA29330.1	CAA57351.1 CAA78352.1 AAA91047.1 CAA57353.1 CAA57352.1 CAA57350.1 CAA57350.1 CAA57354.1 CAA57354.1 CAA57354.1 AAG32658.1 AAG32658.1
ng	sa llentum crystallinum		pekinensis
Petroselinum crispum Nicotiana tabacum Nicotiana tabacum Avena fatua Cucumis sativus Nicotiana tabacum Matricaria chamomilla	9.50 E	Medicago sativa Cichorium intybus Triticum aestivum Vitis riparia Euphorbia esula	Triticum aestivum Brassica rapa subsp. pe Vicia sativa Vicia sativa Catharanthus roseus Glycine max Petunia x hybrida Sinapis alba Pisum sativum Petunia x hybrida Solanum melongena Triglochin maritimum Glycine max
1931 Petroseli: 196299 Nicotiana 196298 Nicotiana 1431 Avena fat 1134 Cucumis s 193771 Matricari 193770 Nicotiana	cic scu a	Medicago 101424 Cichorium 122914 Triticum 180758 Vitis rif 127620 Euphorbia	tivum a subsp. roseus brida brida ngena aritimum echinata

Petunia x hybrida	Nicotiana tabacum Pisum sativum	Tagetes erecta	Nicotiana tabacum	()	Physcomitrella patens				Physcomitrella patens	Nicotiana tabacum	Lilium longifiorum	Plastic Neotropieris mada		30	Dinna taeda	Beta vulgaris	Ricinus communis	Ricinus communis	Nicotiana plumbaginifolia	Berberis stolonifera	Prunus armeniaca	Zea mays	Hordeum vulgare	Hordeum vulgare	Zea mays	Chlamydomonas reinnaidti	Brassica napus	Solanum melongena	Zea mays	Parthenium argentatum	Pennisetum ciliare	Lithospermum erythrorhizon		
1875 AB006599	1876 AJ133453 V15383	113363 AF251346	A 7271748	AE205858	AJ249138	AF205859	AJ249140	AJ249139	AJ001586	AJ271750	AB042101	AE275720	AF2U3636	7701	1011	A.TOO2057	1174630	074631	271395	AF052040	AE134733	X89813	L27348	L27349	AF190454	AJ000765	AE019376	AB018243	X78057	X82578	AF325720	AB026251	9791	0/01
SEQ ID NO. BAA21921.1	SEQ ID NO. CAB41987.1	AAF81220.1	CAB89286.1	AAE23770.1	CAB54558.1	AAE23771.1	CAB76387.1	CAB76386.1	CAA04845.2	CAB89288.1	BAA96782.1	AAE87239.1	AAE19407.1	ON CT 000	0EQ 10 NO.	AAGU1147.1	1 9171744	AAR71420.1	CAA95999.1	AAD17490.1	AAD32207.1	CAA61939.1	AAA32948.1	AAA32949.1	AAF01470.1	CAB54526.1	AAB70919.1	BAA85118.1	CAA54975.1	CAA57914.1	AAK15502.1	BAA77025.1	ON OF CHO	SEQ ID NO.
																							Madame Thong-In									me Thong-In	H	Thong-in
Hyacinthus orientalis Atriplex hortensis		*	Capsicum annum Milio :: domostica	Malus X domestica	Martary minimus	Malus x domestica	Malus x domestica	Encalvotus grandis	Malus x domestica	Petunia x hybrida	Petunia x hybrida	Malus x domestica		Capsicum annuum	Aranda deborah	Oryza sativa	Oryza sativa	Hordeum vulgare	Nicotiana syrvestits	Ancirianum majus artirrhinum majus	Sinapis alba	Retula pendula	×	Pisum sativum	Sorghum bicolor	Oryza sativa	Oryza sativa	Eucalvotus grandis	Orvza sativa	Oryza sativa		Dendrobium grex Madame	Oryza sativa	Dendrobium grex Madame Thong-In
AF134116 Hyacinthus orientalis AF274033 Atriplex hortensis	Petunia x Nicotiana	1 Petunia x	/5 Capsicum	U/894/ Malus X domestica	Marda A	XY346/ AMICILIMINAM MAJUS	A Sular X			Petunia	Petunia	Malus x	AJ000760 Malus x domestica	34 Capsicum			_	r .	7.7	X93468 AMCLILIMAM medus		2	Dendrobium grex	Pisum sativum			63		AF141966 Orvza sativa	Oryza sa				AF198174 Dendrobium grex Madam

431 																																												
	Brassica napus	Lotus japonicus	Lycopersicon esculentum	Lycopersicon esculentum	Nepenthes alata	Brassica napus			Pisum sativum	Dolichos Diflorus		Glycine soja	Glycine soja	Dolichos biflorus	Lotus japonicus	Disum sativum				Pisum sativum	Pisum sativum	Pisum sativum	Pisum sativum			Disim sativim	District Control	בדאמווו אשרד מיוו	Solanum tuberosum	Pisum sativum	Pisum sativum			Eucalyptus camaldulensis	Eucalyptus camaldulensis	Oryza sativa	Trition apportion			•	Oryza sativa	Solanum tuberosum	Oryza sativa	Oryza sativa
1887	AF306518	AJ279059	X95098	AF118858	AF080541	AF188744		1888	AF305783	1156261	AE LOO / OL	AF207687	AF207688	AF139807	AF156780	0000000	ABOSOGO	AB038668	AB038555	AB038554	AB027614	AB027613	AB023621	AB022319	AF156782	At 130102	AB02/010	ABUZ/615	058597	AB030444	AB030445	6	1889	AF176035	AF176036	AF313388	0023111	60/070	6	1890	AP001111	052079	AP001111	AP000391
	AAG28780.1	CAC10555.1	CAA64475.1	AAG11397.1	AAD16012.1	AAF01774.1		SEO ID NO.	_	1.550000000	AAEUUDIU.I	AAG32959.1	AAG32960.1	AAD31285 1	1 000000000	AAE 00003.1	BABIABSO.1	BAB18895.1	BAB18894.1	BAB18893.1	BAB18900.1	BAB40230.1	RAR18890.1	1 3055744B	1.0000144	AAE OOOTT. I	BAA89275.1	BAB40231.1	AAB02720.1	BAB18891.1	BAB18892.1		SEQ ID NO.	AAF97728.1	AAD53890.1	AAG37274 1	1.01.000	AAA52/49.1		SEQ ID NO.	BAA90507.1	AAD10836.1	BAA90508.1	BAA83352.1
Spinacia oleracea	5			Lycoper sicon escarcing	Timesomi seculomination	nycopersicon escarement		0 1 1 1 1 1 1 1 1 1	Frageolus vulgaris	Phaseolus vulgaris	Zea mays	Detunia x hybrida		reculta y light de	Petunia x nybrida	Oryza sativa			miloadat adattoria	Others atmosped	כובנים מדוופוים			Solanum tuberosum	Stylosanthes hamata	Oryza sativa ·	Nicotiana sylvestris	Nicotiana sylvestris		Twoopersicon esculentum	Nicotiana svlvestris	Matricaria chamomilla	Lycopersicon esculentum	Catharanthus roseus		Catharantina roseus	nycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Brassica nabus			Orvza sativa	
1901061	100#00	4	1879	AJ2/8332	AB044940	AJZ42551		1880	018349	018348	AF061107	0100000	AECOULE	AFZ60918	AF020545	039860		1001	TOOT	AJZ49/80	0829/4		1882	077655	091857	AB037183	AB016265	AB016266	2520201 PB024575	100255	069233 ABO16264	AB035270	1189257	0701307 4	A0231249	AJ251250	089256	081157	AE057373	DE084185	20110014	1002	1000	1
	BAA12206.1			CAC21424.1	BAB40340.1	CAB43506.1			AAC28907.1	AAB00686.1	1 8181044	AMULJOTO.	AAGZSAZB.I	AAG25927.1	AAC39455.1	AAC49219.1				CAB57457.2	AAB57668.1			AAC29516.1	AAD00708.1	BAB03248.1	RAA97123.1	1 7 1 7 2 4 A	1.121/CMMG	1. FC / O / WHAT	AAC50047.1	BAA9/122.1	1.0000000	AAC43/41.1	CABS6899. I	CAB96900.1	AAC49740.1	AAB38748.1	AAC62619.1		•	010	SEC ID NO.	BAA92903.1

CAA94437.1	270524	Spirodela polyrrhiza	CAA12231.1	AJ224932	Lycopersicon esculentum
BAA94511.1	AB041505	'n	CAA12233.1	AJ224934	Lycopersicon esculentum
			AAB94923.1	AF038386	Capsicum annuum
SEQ ID NO.	1894		CAA72091.1	X11208	Nicotiana tabacum
AAG13131.1	AF193791	Fragaria x ananassa	CAB88668.1	AJ400863	Cicer arietinum
BAB08208.1	AP002539	Oryza sativa	CAP.42530.1	X59873	Triticum aestivum
BAA96769.1	AP002521	Oryza sativa	AAB04688.1	008226	Zea mays
AAB40530.1	U38199	Oryza sativa	CAA12230.1	AJ224931	Lycopersicon esculentum
AAA90948.1	027350		CAA40564.1	X57312	Zea mays
•	X81854	Nicotiana tabacum	CAA49584.1	09669X	Zea mays
CAA91445.1	266544	Pisum sativum	CAA57778.1	X82362	Asparagus officinalis
•	U07339	Oryza sativa	CAA40565.1	X57313	Zea mays
AAC49442.1	U26660	Oryza sativa	CAA49585.1	X69961	Zea mays
CAA35589.1	X17555	Zea mays	BAA07156.1	D37942	Triticum aestivum
CAA42120.1	X59546	Zea mays	BAA07157.1	D37943	Triticum aestivum
AAA68289.1	U07338	Oryza sativa	BAA07159.1	D37945	Triticum aestivum
CAA57448.1	X81855	Nicotiana tabacum	AAA98454.1	U16726	Chlamydomonas reinhardtii
AAG22488.1	AF195868	Vitis vinifera	AAA98450.1	016725	Chlamydomonas reinhardtii
	266543	Pisum sativum	AAA98446.1	016724	Chlamydomonas reinhardtii
CAB61763.1	AJ251246	Saccharum officinarum	AAA34248.1	M31921	Volvox carteri
CAA63404.1		Oryza sativa	AAA34250.1	M31922	Volvox carteri
BAA03354.1	D14457	Zea mays	AAC05126.1	AF048824	Malus x domestica
	221722	Zea mays	CAA64986.1	x95690	Allium cepa
	D14456	Zea mays	BAA07158.1	D37944	Triticum aestivum
CAA79818.1	221721	Zea mays	CAA64987.1	X95691	Allium cepa
			BAA96095.1	AB003780	Lilium longiflorum
SEO ID NO.	1895				
CAA80559.1	223023	Solanum tuberosum	SEQ ID NO. 1	1909	
CAA12157.1	AJ224847	Zea mays	CAC26921.1	AJ295607	Arabidopsis lyrata subsp.
CAA54986.1	X78069		petraea		
CAA45772.1	X64434	Mesembryanthemum crystallinum	BAA36553.1	AB011795	Citrus sinensis
AAB08874.1	U67426	Vitis vinifera	AAD56577.1	AF184270	Daucus carota
AAA67087.1	L34836	Vitis vinifera	AAC49929.1	AF022142	Petunia x hybrida
	AJ132257	Apium graveolens	BAA75309.1	AB023790	Ipomoea batatas
	L27509	Lycopersicon esculentum	BAA75308.1	AB023789	Ipomoea batatas
AAD11429.1	AF097666	Mesembryanthemum crystallinum	AAD26206.1	AE117270	Malus x domestica
AAA83963.1	L35306	Lycopersicon esculentum	AAB41102.1	074081	Ipomoea purpurea
BAA76435.1	AB025007	Cicer arietinum	CAA53579.1	X75965	Vitis vinifera
			BAA21897.1	D83041	Ipomoea nil
	1896		CAA57410.1	X81812	
AAB97163.1	AF025667	Gossypium hirsutum	CAA55628.1	X78994	Medicago sativa

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Populus balsamifera subsp	Nicotiana tabacum		arsesion enine	Oryza sativa	Brassica napus	Dancija Carota	מביים כמוניים מ	Populus nigra	Oryza sativa	Lophopyrum elongatum	rophopyrum elongatum	Oryza sativa	Populus nigra		Lycopersicon esculentum	Oryza sativa	Brassica oleracea	Catharanthus roseus	Glycine max	Lycopersicon esculentum		Lycopersicon esculentum	Oryza sativa	Nicotiana tabacum	Glycine max	Glycine max	Pinus sylvestris	Zea mays	Glycine max	Ipomoea trifida	Glycine max		Solanım tuberosum	Solanum tuberosum	Solanum tuberosum	Oryza sativa	Adiantum raddianum	Adiantum raddianum	
Y18217	043543	,	1911	A1028633	DV007545	010001	095040	AB041503	L27821	AF131222	AE339747	AB023482	AB041504	AP001551	U28007	69000	X12531	273295	AE244889	AF220603	AF244890	U59316	AP001551	AF142596	AF249318	AF244888	AJ250467	U82481	AF249317	U20948	AF1.97946	0	1312 15122051	AF122052	AF122053	AF172282	AF190304	AF190303	
CAC14718.1	trichocarpa AAC49537.1			AAK21965.1	1.0000004	AAGLOOCO.1	AABOL/UB.1	BAA94509.1	AAA33915.1	AAF43496.1	AAK11674.1	BAA78764.1	BAA94510.1	BAA92954.1	AAC61805.1	CAB51834.1	CAA73134.1	CAA97692.1	AAF91323.1	AAF76313.1	AAF91324.1	AAB47421.1	RAA92953.1	AAF66615.1	AAF91337.1	AAF91322.1	CBC20842.1	AAB93834.1	AAF91336.1	AAC23542.1	AAF59905.1	6	SEQ ID NO.	AAGUGASS.I	AG08961.1	DDF34434 1	AAF67053.1	AAF67052.1	
	rersea ameticana Chrysanthemum x morifolium Nicotiana tabacum	Zea mays	Bromheadia finlaysoniana			Juglans nigra		Maliis SD.	. W		Domilie halsemifera subsp.	34044		Fins caeda	Finds caeda	Topics paragraph and country	1	•	Pinus taeda	Nicotiana tabacum	Liriodendron tuliplicata	endron	Pinus taeda		rirlodendron tullplieta		71		Populus Dalsamilera subsp.	noor neemdonlataniis	Populus balsamifera subsp.		Populus balsamifera subsp.	-	Populus balsamirera subsp.		Nicotlana tabacum Populus balsamifera subsp.		
•	023066 086837	AE 0.3 60 9.3	X89199	AB002816	X58138	AJ278457	AF308856	V71360	0001/4		TATO	X18219		AF132122	AF132120	X13//2		AF132121	AF132126	043542	073106	073105	AF132125	AF132119	073103	AF132123	073104	AF132124	X13773		V13771	i	X18218		X13770		U45243	60.011	
	AAC97525.1 AAB97310.1	AAC15414.1	AAAS1227.1 Caa61486.1	BAA19657.1	CAA41146.1	CAR97360.1	1 2116744	AMGULLUU.1	CAASU498.1			CAC14720.1	trichocarpa	AAK37826.1	AAK37824.1	CAA74104.1	trichocarpa	AAK37825.1	AAK37830.1	AAC49536.1	AAB17194.1	AAB17193.1	AAK37829.1	AAK37823.1	AAB17191.1	AAK37827.1	AAB17192.1	AAK37828.1	CAA74105.1	trichocarpa	AABU9228.1	trichocarpa	CAC14719.1	trichocarpa	CAA74102.1	trichocarpa	AAC49538.1	CAR/4101.1	rrichocarpa

minimise that the minimise the minimise that the minimise the minimise that the minimise the minimise that the minimise that the minimise that the minimise the minimise the m	AE310939		AUSTOTOF.	AJ310155	CAA08797.1 AJ009719 Solanum tuberosum	CAC35326.1 AJ310151 Linum usitatissimum	A.T310150	POSTOTE POSTOTE A	AJ310161 Linum	Linum	CAC35332.1 AJ310157 Linum usitatissimum	CAC35339.1 AJ310164 Linum usitatissimum	AAD25966.1 AF093639 Linum usitatissimum	CAC35338.1 AJ310163 Linum usitatissimum	AAG43546.1 AF211528 Nicotiana tabacum	CAC35321.1 AJ310150 Linum usitatissimum	CAC35333.1 AJ310158 Linum usitatissimum	CAC35334.1 AJ310159 Linum usitatissimum	CAC35329.1 AJ310154 Linum usitatissimum	AAD25969.1 AF093642 Linum usitatissimum	AAD25974.1 AF093647 Linum usitatissimum	•	AAD25975.1 AF093648 Linum usitatissimum		CAC35331.1 AJ310156 Linum usitatissimum	Linum	1 AF093641 Linum	AAA91022.1 U27081 Linum usitatissimum	49 Linum	AAA91021.1 U27081 Linum usitatissimum	AAD25970.1 AF093643 Linum usitatissimum	AAD25967.1 AF093640 Linum usitatissimum	Linum	AAD25971.1 AF093644 Linum usitatissimum	AAD25965.1 AF093638 Linum usitatissimum	AAD25973.1 AF093646 Linum usitatissimum	AAD25972.1 AF093645 Linum usitatissimum	AAG01051.1 AF175394 Glycine max	AAG09954.1 AF175399 Glycine max	AAG09953.1 AF175398 Glycine max		
•	e cereale		brida	Oryza sativa CP				ď	Glycine max CP	abacum				abacum			abacum		um vulgare	da		rsutum		hybrida	lentum	asativa	eum vulgare	wpium hirsutum	eum vulgare	eum vulgare		A.	Nicotiana qlutinosa Al			usitatissimum	usitatisimum			un u		
	AF190301	AF190302	Z13998	X11415	AB029160	AB020159	ADUZALJA	Y11414	AB029165	U72762	DB02861	D88620	120000 120000	DB028650	A.TOO 62 92	AB029161	AF198498	x70881	X70878	213997	7000X	A5336283		z13996 z13996	X98308	D88621	X70876	AE336278		AY008692		1915	015605	AF310962	AF310964	AF310968	AF310961	AF310960	AJ009720	AE310966	AF310960	11111
	AAF67050.1	AAF67051.1	CAA78388.1	CAA72218.1	BAA81731 1	1.15/10440	BAAGI/30.1	CAA72217.1	BAA81736.1		1 50000440	1.07550449	ניטברנטהאם	1 00000440		1 00000000	APC28525 1	T 9202030	•	•	1,000,000	1.000/044 1.000/044	•	CAA78386.1	CAA66952.1	L 1982344		AAK19611.1	CAA61021.1	ABG22863.1	*	SEO TD NO. 1		A D K 2 B R O 4 1	1 01883A44	AAK28812.1	1 32 8 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		CAA08798.1	AAK28811.1	1.3023744	

AAD25970.1

CAC35329.1 AAD25972.1 AAD25976.1 AAD25967.1 AAD25966.1 AAD25965.1 AAD25975.1 AAD25974.1 AAD25973.1

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																		43	5																		ie Lady'	- -	le Lady'
Linum usitatissimum Linum usitatissimum		Linum usitatissimum			Linum usitatissimum		Linum usitatissimum		Linum usitatissimum	Glycine max	Linum usitatissimum			Solanum tuberosum	Gossypium nirsurum	Nicotiana tabacum	Solanum tuberosum	Striga asiatica	striga asiacica	Avena nuda	ricea rubells	Vigna radiata	Oryza sativa	Setaria italica	Mimosa pudica	moso	Phalaenopsis sp. True	ort.	Phalaenopsis sp. True										
AE093642	AJ310156	AJ310159	AJ310150	AJ310152	AF093641	U27081	U27081	AJ310163	AJ310157	AJ310150	AJ310161	AJ310158	AJ310150	AF175399	AJ310155	AJ310153	AJ310164	AJ310151	AF310964	AF310968	AF310966	•	1920	X55751	AF059484	X63603	X55749	U68461.	068462	AF234528	AFT /2094	AF143208	X15865	AF288226	AB032361	X55752	AF246714	AF112538	AF246715
AAD25969.1	CAC35331.1	CAC35334.1	CAC35323.1	CAC35327.1	AAD25968.1	AAA91022.1	AAA91021.1	CAC35338.1	CAC35332.1	CAC35325.1	CAC35336.1	CAC35333.1	CAC35321.1	AAG09954.1	CAC35330.1	CAC35328.1	CAC35339.1	CAC35326.1	AAK28810.1	AAK28812.1	AAK28811.1			CAA39280.1	AAC31886.1	CAA45149.1	CAA39278.1	AAC49651.1	AAC49652.1	AAE40438.1	AAF03692.1	AAF31643.1	CAA33874.1	AAG10041.1	BAA89214.1	CAA39281.1	AAF71264.1	AAD41039.1	AAE71265.1
ŭ	Lycopersicon esculentum	Lycoperation esculentum		Nicotiana svlvestris	Nicotiana sylvestris	Nepenthes alata	Solanim tuberosum	Solanum tuberosum	Nepenthes alata	Nepenthes alata	Victa faba	Vicia faba	Vicia faba			Solanum tuberosum	Nicotiana glutinosa	Nicotiana tabacum		Linum usitatissimum	Glycine max	Glycine max	Glycine max	Linum usitatissimum	Linum usitatissimum	Linum usitatissimum													
AF274032	AF014810	Ar014809	AFU14000	16693	1131932	DF080544		Y09825	DF080543	AF080542	AF061435	AF061436	AF061434		9191	A.T009720	1115605	AF211528	0.1000T.4		AF310958	AE310959	AF310961	AF310962	AF310960	AF175395	AF175388	AF175394	AJ310154	AF093645	AF093649	AF093640	AF093639	AF093638	AE093648	AF093647	AF093646	AF093644	AF093643

AAB47618.1 AAK28803.1 AAK28804.1 AAK28808.1 AAK28809.1 AAK28805.1 AAG01052.1 AAG09951.1 AAG01051.1

SEQ ID NO.

CAA08798.1 AAA50763.1 AAG43546.1 CAA08797.1

AAF15945.1

AAF15944.1

AAF15946.1

AAD16015.1 CAA70969.1 CAA70968.1 AAD16014.1 AAD16013.1

AAF76897.1 AAD25162.1 AAD25161.1 AAD25160.1 CAA70778.1 AAB96830.1 AAB48944.1

AAD03741.1	AF111812	Brassica napus	CAC10358.1	AJ277086	Nicotiana tabacum
•	X79378	Sorghum bicolor	AAC36698.1	AE'U / 558U	Mesembryanthemum crystalli Niootisns tabacum
AAB38512.1	U81047	Pisum sativum	AAC43835 1	AF213455	
AAB38511.1	081046		1 35300040	רפספסכד ת	France sultration
AAB18642.1	U76191		CACU95/5.1	A0230301	Bonne evitentia
AAB18641.1	U76190	Pisum sativum	CABSU634.1	AUZ 1 1 4 4	
CAA62028.1	X90378	Pisum sativum	AAC35951.1	AF0/9355	
CBB34356.1	X16280	Oryza sativa	AAD11430.1	AE097667	
C 99878447	x67666	sativ	AAC36700.1	AF075582	Mesembryanthemum crystallin
AAF82805.1	AE282624	Helianthus annuus	CAC09576.1	AJ298988	Fagus sylvatica
CAA48609.1	X68649	Pisum sativum	AAC26828.1	AF075603	Oryza sativa
AAC16054.1	AF061019	Coleochaete scutata	AAB93832.1	081960	Zea mays
AAB38514.1		Pisum sativum	AAC36699.1	AF075581	Mesembryanthemum crystall11
AAB18644.1	U76193	Pisum sativum			
AAC64127.1	AF091809	Anemia phyllitidis		1927	•
CAA39279.1	X55750	Solanum tuberosum	AAG02411.1	AF284038	
AAD02328.1	AF044573	Brassica oleracea	CAA72274.1	Y11486	
CB223232	V00450	Glycine max	CAB52709.1	AJ245878	Triticum aestivum
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	AF061020	Mesostiama viride	CAB52710.1	AJ245879	mn
1.0001044	DE02022		CAA66232.1	X97636	Hordeum vulgare
1 66650044	AF049106		CAA72273.1	X11485	mn
1.27.20.34.4	AF281323	Magnolia denudata	CAA64599.1	X95277	Hordeum vulgare
1.306/3044G	D50830	Chlamydomonas reinhardtii	CAA90071.1	249890	Triticum aestivum
1.00%00%4G	D50838	Chlamydomonas reinhardtii	BAA88536.1	AP000969	Oryza sativa
ביניניטהמת	83968 M33963	Volvox carteri			
ן הבעבבתתת	8F 2 LOT.	Zea mays	SEQ ID NO. 1	1928	
1.0010000	AF061018	Scherffelia dubia	AAC35846.1	AF083333	Medicago sativa
AAC10033.1		. !'	AAA74882.1	L36823	Stylosanthes humilis
	X15862	Orvza sativa	AAK28509.1	AF320110	Fragaria x ananassa
	T01297	Glycine max	AAD10327.1	U63534	rn.
AAC64126.1	AF091808	Anemia phyllitidis	AAB38503.1	079770	Mesembryanthemum crystallinum
1 3884 Tag	AF090969	Selacinella apoda	AAC15467.1	U24561	Apium graveolens
1 9883004	AF090970	×	AAC61854.1	AF067082	Apium graveolens
•	X55746	Solanum tuberosum	AAA74883.1	L36456	Stylosanthes humilis
•			CAA86072.1	237991	Pinus taeda
ON OT OTO	1925		CAA51226.1	X72675	Picea abies
	711607	Medicado sativa	CAA05097.1	AJ001926	Picea abies
AAD17804.1	AF092431	Lotus japonicus	CAA05096.1	AJ001925	
AAD17805.1	AF092432	Lotus japonicus	AAB38774.1	062394	Pinus radiata
CAB90633.1	AJ277743	Faqus sylvatica	CAA05095.1	AJ001924	Picea abies
AAC36697.1	AE075579		CAA86073.1	237992	Pinus taeda

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Oryza sativa Populus nigra Oryza sativa	Lophopyrum elongatum	Oryza sativa	Zea mays	Glycine max	Glycine max	Glycine max	Nicotiana tabacum	Daucus carota	Pinus sylvestris	Nicotiana tabacum	Glycine max	Oryza sativa	Catharanthus roseus	Malus x domestica	Oryza sativa	Orvza sativa			Oryza sativa	Lophopyrum elongatum	Lophopyrum elongatum	Brassica napus	Populus nigra	Populus nigra	Brassica napus	Glycine max		Lycopersicon esculentum	Glycine max	Oryza sativa	Zea mays	Nicotiana tabacum	Oryza meyeriana		Lycopersicon esculentum	Lycopersicon hirsutum	Lycopersicon esculentum
AP000367 AB041504 AB023482	AF131222	AC073405	U67422	AF244889	AF244890	AF244888	AF302082	U93048	AJ250467	AF142596	AF197947	69000	273295	AF053127	AP001800	AD001800	2010014	1936	AB023482	AF131222	AE339747	AY007545	AB041503	AB041504	AX028699	AF249318	AC073405	U28007	AF249317	69000	AF023164	AF302082	AF290411	AF023165	U59316	AF318490	AF220603
BAA82394.1 BAA94510.1 BAA78764.1	AAE43496.1	AAK116/4.1 AAG03090.1	AAB09771.1	AAF91323.1	AAF91324.1	AAF91322.1	AAG25966.1	AAB61708.1	CAC20842.1	AAF66615.1	AAF59906.1	CAB51834.1	CAA97692.1	PAC36318.1	Baaq4529.2	ר אנייאטריהת	PARS4310.1	CR OT ORS		DDF43496.1	DAK11674.1	nag16628.1	1.020010AG	BAA94510.1	AAK21965.1	AAF91337.1	AAG03090.1	AAC61805.1	AAF91336.1	CAB51834.1	AAC27894.1	AAG25966.1	AAG33377.1	AAC27895.1	AAB47421.1	AAK11566.1	AAF76313.1
Pinus radiata Populus balsamifera subsp.	Populus tremuloides	Populus deltoides		Aralla Coluaca	Eucalyptus saliqua	Eucalyptus grobulus	Nicotiana Labacum	Eucalyptus guinita	Lycopersicon escurentum	Eucalyprus guinta	Zea mays	Medicago sativa	Zea mays	Medicago sativa		Iolium perenne	Zinnia elegans	Eucalyptus botryoides	g	Brassica oleracea	Brassica napus	Brassica napus		g	Brassica oleracea	_	H. 10 CA CALLET TO THE COLUMN	Solanum cubelosum		1	Zea mays	Zea mays	Brassica napus	Brassica napus	Grycine max	Populus nigra	Lycoperation escurentum Glycine max
AF060491 AJ295837	AF217957	219568	X62343	D13991	AF294793	AE038561	X62344	X65631	AF146691	X75480	X13733	z19573	AJ005702	AF083332	AJ231135	AF010290	D86590	D16624	AF207559	AF207558	AF207557	AF207556	AF109157	AF207552	AF207554		1929	X92491	•	1935	AF023164	AF023165	AY007545	AY028699	AF249317	AB041503	U28007 AF249318
AAC31166.1 CAC07423.1	trichocarpa	CAA79622.1	CAA44216.1	BAA03099.1	AAG15553.1	AAC07987.1	CAA44217.1	CAA46585.1	AAE72100.1	CAA53211.1	CAA74070.1	CAA79625.1	CAA06687.1	AAC35845.1	CAA13177.1	AAB70908.1	BAA19487.1	BAA04046.1	AAF23416.1	AAF23415.1	AAF23414.1	AAF23413.1	AAD18000.1	AAF23409.1	AAE23411.1			CAA63223.1			AAC27894.1	AAC27895.1	AAG16628.1	AAK21965.1	AAF91336.1	BAA94509.1	AAC61805.1 AAF91337.1

WO 2002/010055		PC1/US2001/026685
tabacum hardtii ta	438	1111
Brassica napus Eucalyptus gunnii Cucumis sativus Brassica napus Oryza sativa Glycine max Pisum sativum Medicago sativa Plastid Nicotiana tabacum Brassica napus Chlamydomonas reinhardtii Vitis vinifera Dunaliella bioculata Brassica napus Medicago sativa Glycine max Glycine max	Brassica rapa Vitis vinifera Malus x domestica Malus x domestica Nicotiana tabacum Prunus avium Pyrus pyrifolia Vitis vinifera Castanea sativa Oryza sativa Cestrum elegans Pseudotsuga menziesii	Nicotiana tabacum Avena sativa Oryza sativa Oryza sativa Vitis vinifera Cicer arietinum Vitis vinifera Nicotiana tabacum Vitis riparia Nicotiana tabacum
AJ242712 X78800 I.31900 AJ242713 D85763 AF068686 AF079850 AF006974 X92512 U40212 AF195869 AJ250842 X89451 AF180335 AF068687	U71244 AF195653 AC243427 AF090143 AB000834 U32440 AB06009 AF195654 AJ242828 AL442113 AB031870 AJ31731	AB029918 U57787 U77657 AF227324 AJ010501 AF003007 X15224 AF178653 X15223 J01209
	SEQ 1D NO. JAB95118.1 AAF06346.1 CAC10270.1 AAC36740.1 BAA74546.2 AAB38064.1 BAA28872.1 AAF06347.1 CAU62167.1 CAU62167.1 CAU62167.1 CAU62167.1	BAA95165.1 AAB02259.1 AAB53368.1 AAF82264.1 CAA09228.1 AAB61590.1 CAA33293.1 AAD55090.1 CAA33292.1
Nicotiana tabacum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Zea mays Catharanthus roseus Lycopersicon pimpinellifolium Daucus carota Lycopersicon pimpinellifolium Phaseolus vulgaris Lycopersicon hirsutum Phragmites australis	Oryza sativa Hordeum vulgare Hordeum vulgare Hordeum vulgare Lycopersicon esculentum Cycopersicon esculentum Solanum tuberosum Hordeum vulgare Oryza sativa	Zea mays Oryza sativa Lycopersicon esculentum Solanum tuberosum Oryza sativa Botryococcus braunii Chlamydomonas reinhardtii Chlamydomonas reinhardtii Citrullus lanatus Medicago sativa
AF142596 U02271 AF220602 U59315 U67422 273295 U59317 U93048 AF226602 AF285172 AF285172 AF318491 AB055630 AB055630 AB055631 AB055632 AF129479	AF129485 AF129480 AF129484 AJ300161 Y10602 Y08887 Y08888 AF067859 M55684 M55685	Z11754 AP001129 Y10603 AF067860 D16685 U80676 U42979 M33148 AF020273

SEQ ID NO. 1938

CAA71611.1

CAA70101.1 AAC21564.1 AAA62697.1

CAA70100.1

AAA62696.1 BAA02971.1 CAA77808.1 BAA90618.1 CAA71612.1 AAC21565.1 BAA04088.1 AAB38970.1 4AB99757.1

AAD10324.1 AAA33041.1

SEQ ID NO. 1937

BAB32443.1

BAB32444.1

BAB32442.1

AAF36491.1 AAF36497.1 AAF36492.1 AAF36496.1 CAC15061.1

BAB32445.1

AAK11567.1

AAG00510.1

AAF76306.1

AAE66615.1 AAC48914.1 AAB09771.1

CAA97692.1 AAB47424.1

AAB47423.1

AAB61708.1 AAF76307.1

Lycopersicon esculentum Orvza sativa	Lycopersicon esculentum	Glycine max	Brassica oleracea	Mesembryanthemum crystalli	Zea mays	Prunus persica	Nicotiana plumbaginifolia	Oryza sativa	Dunaliella acidophila	Lycopersicon esculentum	Dunaliella bioculata		Oryza sativa	Nicotiana plumbaginifolia	Zostera marina	truncatula	Medicago truncatula &		Nicotiana plumbaginifolia	Solanum tuberosum	Nicotiana plumbaginifolia	Lycopersicon esculentum	Prunus persica	Mesembryanthemum crystallinum	Vicia faba	Vicia faba	Zea mays	Phaseolus vulgaris	Vicia faba	Nicotiana plumbaginifolia	Nicotiana plumbaginifolia	Nicotiana plumbaginifolia	Solanum tuberosum	Nicotiana plumbaginifolia		Lycopersicon esculentum	Cucumis sativus	Lilium longiflorum
M96324	AF050495	AF195028	X99972	AF145478	68660N	AJ271439	AF156683	D10207	U54690	M60166	X73901	S79323	D31843	M80489	D45189	AJ132891	AJ132892	AF029256	X66737	X76535	AF156679	U72148	AJ271438	U84891	AJ310524	AB022442	X85805	X85804	AJ310523	AF156691	M80491	M27888	X76536	M80490	AF179442	AF275745	AF289025	AY029190
AAA34138.1	AAD11617.1	AAG28435.1	AAG28436.1	AAD31896.1	AAB60276.1	CAB69824.1	AAD46187.1	BAA01058.1	AAB49042.1	AAA34173.1	CAA52107.1	AAB35314.2	BAA06629.1	AAA34094.1	BAA08134.1	CAB85494.1	CAB85495.1	AAB84202.2	CAA47275.1	CAA54045.1	AAD46186.1	AAB17186.1	CAB69823.1	AAB41898.1	CAC29436.1	BAA37150.1	CAA59800.1	CAA59799.1	CAC29435.1	AAD46188.1	pp34099.1	AAA34052.1	CAA54046.1	AAA34098.1	AAD55399.1	AAF98344.1	AAG01028.1	AAK31799.1
	Papaver somniferum	ಹ	Eschscholzia californica	Berberis stolonitera					Nicotiana tabaciim	,		nomocollis huhrid cultivar	22251			Fillus Lauraca		TOTTON bereing				Holcus Lanatus	Fuleum pracense	Poa pratensis	Oryza sativa	Glycine max	Figure praceuse	Phalaris aquactos	π.	Nicotlana tabacum	Cynodon dactylon	Triticum aestrum	Cucumis sacivus		400000000000000000000000000000000000000	OLYZA SALTYA	nonlalla bioculata	
	1942 arn25430	AF005655	\$65550	AF049347	,	1943	Y11210		1947	X/3111	1	1950	Ar082030		TART	AFU49U68	M57474	X57678	M57476	268893	227084	AJ012714	227090	AJ131850	03171	003860	X78813	S80654	AF159703	AF333386		091981			195/ * 5001111	APOULLIL	AEU90071	A55382 AE050496
	SEQ ID NO. 1	AAC01039.1 AAC39358.1	AAB20352.1	AAD17487.1			CAA72093.1			CAC28528.1	,	SEQ ID NO.	AAC34855.1			AAC05149.1	AAA63279.1	CAB63699.1	AAA63278.1	CAA93121.1	CAA81610.1	CAA10140.1	CAA81613.1	CAA10520.1	AAA86533.1	AAA50175.1	CAA55390.1	AAB35984.1	AAF80379.2	AAG52887.1	AAB50734.2	AAD10496.1	AAB37749.1			BAA90510.2	AAE / 3985. 1	CAA63/90.1 AAD11618.1

AAA81348.1	038965		CAA46234.1	X65118 M74566	Nicotiana plumbaginifolia
AAK32119.1 AAK32118.1	AF30881/ AF308816	holdeum vulgare Hordeum vulgare	AAA79045.1	U34742	Spinacia oleracea
AAA20600.1	U08984	Zea mays	CAA57551.1	X82030	Phaseolus vulgaris
	1	1	CAA11893.1	AJ224324	Hordeum vulgare
SEC ID NO.	1959		CAA41023.1	X57955	Spinacia oleracea
	A.7239051	Cicer arietinum	AAA33039.1	L15080	Mesembryanthemum crystalli
BAA74465.1	AB022732	Glycyrrhiza echinata	CAC01238.1	AJ292768	
BAA93634.1	AB025016	Lotus japonicus	AAC49850.1	U90212	Nicotiana tabacum
BAA22422.1	AB001379	Glycyrrhiza echinata	CAC01237.1	AJ292767	Nicotiana plumbaginifolia
CAA04117.1	AJ000478	Helianthus tuberosus	CAA81127.1	226042	Anemia phyllitidis
CAB41490.1	AJ238439	Cicer arietinum	AAF66823.1	AF190655	Nicotiana tabacum
CAA04116.1	AJ000477	Helianthus tuberosus	AAB38974.1	081318	Triticum aestivum
CAA10067.1	AJ012581	Cicer arietinum	CAA05729.1	AJ002894	Oryza sativa
AAD56282.1	AF155332	Petunia x hybrida	BAA05170.1	D26182	Nicotiana sylvestris
AAG09208.1	AF175278		AAF66825.1	AF190657	Nicotiana tabacum
1 9212144	D83968	Glycine max	AAK30205.1	AF349964	Daucus carota
CBB65580.1	X96784		AAF63202.1	AF240679	Cucumis sativus
AAC49188.2	029333	Pisum sativum	AAB71417.1	U81287	Pisum sativum
AAG44132.1	AF218296	Pisum sativum	BAA22083.1	D28862	Nicotiana sylvestris &
CAB64635.1		Nicotiana tabacum	CAB75429.1	AJ272011	
AAC39454.1	AF014802	Eschscholzia californica	BAA12064.1	D83696	Nicotiana sylvestris
AAB94590.1	AF022461	Glycine max	AAA75104.1	032310	Triticum aestivum
AAA32913.1	M32885	m	BAA03742.1	D16205	Nicotiana sylvestris
BAA84072.1	AB028152	Torenia hybrida	CAA88558.1	248624	Hordeum vulgare
BAA13076.1	D86351		AAG23220.1	AF310215	Sorghum bicolor
BAA84071.1	AB028151	Antirrhinum majus			
AAC32274.1	AF081575	Petunia x hybrida		1961	
CAA50155.1	X70824	Solanum melongena	AAG27547.1	AF269128	Brassica nigra
CAA70575.1	X09423	н	AAC27695.1	AF016010	Brassica napus
BAA92894.1	AB006790	Petunia x hybrida	AAC27694.1	AF016009	Brassica napus
AAR94587.1	AF022458	Glvcine max	AAC27696.1	AF016011	Brassica napus
			AAG27546.1	AF269126	Brassica nigra
SEC ID NO.	1960		AAG24863.1	AF300700	Ipomoea nil
	111110	Nicotiana svlvestris	AAC99310.1	AF052585	Malus x domestica
BAA01886.1	011110		AAC99309.1	AF052584	Malus x domestica
CAA11894.1	AJ224325	Hordeum vulgare	AAC35496.1	AF052690	Raphanus sativus
BAA22411.1	D38485		AAD22518.1	AF001136	Pinus radiata
CAA06469.1	AJ005286	_	AAK14948.1	AF230669	Brassica napus
CAA66479.1	X97905	m	AAK14950.1	AF230671	Brassica oleracea
CAA46233.1	X65117	Nicotiana plumbaginifolia	AAK14947.1	AF230668	Brassica napus

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Oryza sativa Triticum aestivum	Pseudotsuga menziesii	Oryza satzva	Fseudorsuga menziesii	•	4.000	Sinapre alba	Sorgium Dicolor	Maninor escurenca	Manihot esculenta	Triglochin maritimum	Triglochin maritimum	Petunia x hybrida	Petunia x hybrida	Solanum melongena	Petunia x hybrida	Persea americana	Nicotiana tabacum	Nicotiana tabacum	Glycine max	Enstone grandiflorum	Dienmestinn	# 100 C 1000	rycopersicon escurentum					Pisum sativum	Brassica napus	Glycine max	Brassica napus	Pisum sativum	Glycine max	Brassica napus	Glycine max	Antirrhinum majus	Petunia x hybrida			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Citrus x paradisi
U83670 X13431	X92983	1/9880	X92984	1065	1300	AF069494	032624	AET40613	AF140614	AE140609	AF140610	AB006790	AF155332	X70824	AF081575	M32885	X95342	x96784	AF022458	1172654	0/5034	AE 1/32/8			AJ000478	AJ000477	AJ239051	029333	AF214009	AF135485	AF214008	AF218296	AF022459	AF214007	AF022461	AB028151	X71130	0011	1066	1900	AFZ83536
AAC78393.1 CAA31785.1	CAA63570.1	AAC/8394.1	CAA63571.1	CM CT CEO		AAD03415.1	AAA85440.1	AAF27289.1	AAE27290.1	AAF66543.1	AAE66544.1	BAA92894.1	AAD56282.1	CAA50155.1	AAC32274.1	AAA32913.1	CAA64635.1	CA465580 1	ABB94587 1	ויייסטריטמת	AAB1/562.1	AAGU9208.1	AAD37433.1	Lycopersicon	CAA04117.1	CAA04116.1	CAB43505.1	AAC49188.2	AAG14963.1	AAD38930.1	AAG14962.1	AAG44132.1	AAB94588.1	AAG14961.1	AAB94590.1	RAA84071.1	1 2000	1.25 EUCAHO	ON OF CHO	SEQ ID NO.	AAG38521.1
Brassica rapa		Glycine max	Medicago sativa	Glycine max	Pisum sativum	Glycine max	Helianthus annuus	Cuscuta japonica								Kraum sacrvam		medicago saciva		ມນອ	Helianthus annuus	Helianthus annuus	Fragaria x ananassa	Orvza sativa	Daucus carota	O	Orvza sativa	Chenopodium rubrum	Nicotiana tabacum	Papaver somniferum	- 0	Dennisetum claucum		מיים ביינה כפ		Castalles sattva	_	Onercus super	O)	Oryza sativa	Oryza sativa
AF230670	1962	M11395	X58711	M11318	M33899	X01104	\sim	AB017273	M11317	A 512327	AE12325	AE 123233	ADOLDO	AF163630	X23821	Massoo	AETOIL/9	0T/85X	046544	046545	295153	X59701	063631	M80939	x53852	M80938	x60820	X53870	AF166277	1108601	DE0000	V04192	367560		X65/25	AJUUSBBU	X94193	AJ000691	X94191	083669	D12635
AAK14949.1	SEQ ID NO. 1	AAA33975.1	CAA41547.1	AAB03893.1	AAA33672.1	CAA25578.1	CAB55634.2	RAB33062.1	ר 2000 ביתה	AAA3334.1	AAD30434.1		CAA396U3.1	AAD30453.1	CAA3/84/.1	AAA336/1.1	AAE34133.1	CAA41546.1	AAB63310.1	AAB63311.1	CAB08441.1	CAA42222.1	AAC39360.1	1 01055444	ביטבעננמתה	1.040,5444	1.000000447	1.01325440	1 989764	1.000000000	1.0010004	•	CAM63902.1	AAB39856.1	CAA46641.1	CAAUBSUB. 1	CAA63903.1	CAB36910.1	CAA63901.1	AAC78392.1	BAA02160.1

AF136941 Hordeum	BAA74583.1 ABULLSbb hordeum vurgare		AB011269	AB021746		AB019525	BAA74585.1 AB011268 Hordeum vulgare		AB011267	20717000	9961 ON CI CGS		AE 1 / 2001	1 AJUU9825	1,39931		S78994	AJU06052	X64201	AF089851	AADS1007.1 AF1/1698 Euphorbla charactas	0901 0%			AF 2 6 3 4 3 7	750404 B	AE001168		9EO TO NO 1977		11 11 11 11 11 11 11 11 11 11 11 11 11	AB041304	Ar 131222	AE339747	AB041503	AY00/545	AY028699	405	
Glycine max		Oryza sativa	Oryza	Zea mays	Lea mays mbrocis sttemisiifolis	AllOTOSIA AICCRISTATOTA	Com mays	GLYCLING MAAA	Tricom aestrom	Comm	Castanea sativa	Pyrus communis	Sorghum bicolor	Triticum aestivum	Triticum aestivum	Brassica rapa	Cucumis sativus	Artemisia vulgaris	Oryza sativa	Hordeum vulgare	Brassica rapa	Sesamum indicum	Lycopersicon esculentum	Glycine max	Glycine max	Ricinus communis	Manihot esculenta	Glycine max	Carica papaya	Lycopersican escurentum	Ipomoea bararas	Ipomoea batatas	Dianthus caryophyllus	Triticum aestivum	Lycopersicon esculentum			Lycopersicon esculentum	
m	221954	U54702	S49967	X87126	D63342	L16624	DSBISU	US1833	AB038392	AB038393	AJ224331	U82220	X87168	AB038391	AB038394	L41355	AB014760	AF143677	AP001073	X12068	U51119	AF240007	AE198389	D64115	D31700		AF265551	051854	X71124	AF198388	AF117334	AF241536	AY028994	AB038395	AF083253		1967	AJ242045	
05185	22	D	ഗ	× '	٦ ٠	٠ ٦	- ·																																

Oryza sativa Oryza sativa Oryza sativa Triticum aestivum Nicotiana tabacum Triticum aestivum Mesembryanthemum crystalli: Glycine max	as eugametos ma plantagin niferum niferum niferum	Medicago sativa subsp. sagrad Medicago sativa Medicago sativa Medicago sativa Medicago sativa Glycyrhiza echinata Glycyrhiza glabra Glycyrhiza glabra Xerophyta viscosa Bromus inermis Hordeum vulgare Hordeum vulgare Avena fatua Orobanche ramosa Apium graveolens Sesbania rostrata Papaver somniferum Lotus corniculatus Cicer arietinum Lotus corniculatus Papaver somniferum
D88399 AC084763 AB002109 U29095 U73939 M94726 Z26846 L38855	AF186020 Z49233 AJ005373 1979 AF108435 AF108434 AF108433 X55730 X82367	U13925 X82368 X82366 U13924 D83718 D86559 D86559 AF133841 L12042 X57526 Z48360 U21747 AF055910 U83687 AF108437 AF308853 AB024989 AF108436
BAA13608.1 AAG60195.1 BAA19573.1 AAB58348.1 AAD00240.1 AAA96325.1 CAA81443.1		AAB41556.1 CAA57784.1 CAA57782.1 AAB41555.1 BAA13114.1 BAA13113.1 AAA21751.1 CAA40747.1 CAA40747.1 CAA69322.1 AAC15839.2 AAB97617.1 AAC15839.2 AAB97617.1 AAC15839.1 AAC15839.1 AAC15839.2 AAB97617.1 AAC15839.1 AAC15839.2
Glycine max Glycine max Nicotiana tabacum Catharanthus roseus Lycopersicon hirsutum Lycopersicon esculentum Lycopersicon esculentum	Zea mays Lycopersicon hirsutum Zea mays Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Nicotiana tabacum Oryza sativa Brassica oleracea	Triticum aestivum Oryza sativa Sea mays Oryza sativa Sorghum bicolor Sorghum bicolor Oryza sativa Oryza sativa Cucumis sativus Glycine max Hordeum vulgare Nicotiana tabacum Oryza sativa Solanum tuberosum Oryza sativa Hordeum vulgare Hordeum vulgare Hordeum vulgare
AF249318 AF249317 AF142596 273295 AF318491 US9316	AF023164 AF318490 AF023165 AF220602 US9317 AF220602 UC271 US9315 AF302082 AF172282	AF250411 AP001551 AP001551 AB011670 AB011967 AF141378 AB011968 Y12464 AF004947 AF004947 AF002482 Y10036 AF128443 X82548 D26602 AF062479 X95997 U55768 X65604 AJ007990 X65606 U73938
AAF91337.1 AAF91336.1 AAF66615.1 CAA97692.1 AAK11567.1 AAB47421.1	AAC27894.1 AAK11566.1 AAC27895.1 AAF76306.1 AAF76307.1 AAC48914.1 AAC48914.1 AAG25966.1 AAC25966.1 AAF34428.1	AAG333//.1 BAA92954.1 SEQ ID NO. 1 BAA83688.1 AAF22219.1 BAA83689.1 CAA73068.1 CAA73067.1 AAB62693.1 BAA96628.1 CAA71142.1 AAD23582.1 CAA71142.1 AAD00239.1

Y10466 Spinacia oleracea AF244924 Spinacia oleracea AB024439 Scutellaria baicalensis AB024438 Scutellaria balcalensis L37790 Stylosanthes humilis AF244923 Spinacia oleracea	60 Vicia sativa 17 Triticum aestivum 17 Vicia sativa 18 Brassica rapa subsp. pekii 02 Catharanthus roseus 59 Glycine max 57 Glycine max Persea americana Pisum sativum Glycine max 44 Asparagus officinalis Nepeta racemosa	845 anum 112 660 09 007 007 08 33 33 77
CAA71492.1 Y10466 AAF63027.1 AF24499 BAA77389.1 AB0244 BAA77388.1 AB0244 AAB02554.1 L37790 AAF63026.1 AF24499	SEQ ID NO. 1981 AAD10204.1 AAG17470.1 AAG33645.1 AAG33645.1 AAC3291 CAB41474.1 AAC3384 AAB94588.1 AAC324 AAB94586.1 AAC324 AAB94580.1 AAC32913.1 AAC32013.1	
Ipomoea batatas Phaseolus vulgaris Populus balsamifera subsp. Populus kitakamiensis Nicotiana tabacum	m 11:400:4m :4m	Medicago sativa Glycine max Medicago sativa Medicago sativa Populus kitakamiensis Populus kitakamiensis Medicago sativa Armoracia rusticana Glycine max Populus kitakamiensis Armoracia rusticana Cucumis sativus Oryza sativa Nicotiana tabacum Cucurbita pepo Armoracia rusticana Cucumis sativus Nicotiana tabacum Gossypium hirsutum Arachis hypogaea
AJ242742 AF149280 X97351 D30653 J02979	X97348 L07554 D83225 X71593 Y19023 D83224 X97349 AF149277 D11102	X90692 X90693 X90693 X90694 D30652 D38051 L36156 L36156 D90116 AF007211 D13683 D90115 M91372 D49551 L02124 X17192 X57564 M32742 AB027752 AB027752
CAB94692.1 AAD37430.1 CAA66037.1 trichocarpa BAA06335.1 AAA34108.1	CAA66034.1 trichocarpa AAB47602.1 BAA11853.1 CAA50597.1 CAB67121.1 BAA11852.1 CAA66035.1 trichocarpa AAD37427.1 BAA01877.1	CAA62225.1 AAB97734.1 CAA62225.1 CAA62226.1 CAA62227.1 BAA06334.1 BAA07241.1 AAB41810.1 AAB41811.1 BAA14144.1 BAA14143.1 BAA02840.1 BAA14143.1 AAA33129.1 BAA08499.1 CAA76680.1 CAA76680.1 CAA76680.1 CAA76680.1 AAA33121.1 BAA082306.1 AAA33121.1 BAA082306.1

445	
Lycopersicon esculentum Petroselinum crispum Antirrhinum majus Antirrhinum majus Nicotiana tabacum Catharanthus roseus Oryza sativa Petroselinum crispum Oryza sativa Petroselinum crispum Vicia faba Hordeum vulgare Petroselinum crispum Vicia faba Hordeum vulgare Petroselinum crispum Petroselinum crispum Vicia sativa Petroselinum crispum Petroselinum crispum Petroselinum crispum Petroselinum crispum Petroselinum crispum Nicia sativa Antirrhinum majus Oryza sativa Antirrhinum majus Oryza sativa Nicotiana tabacum Lycopersicon esculentum Hordeum vulgare Gossypium hirsutum Hordeum vulgare Gossypium hirsutum Hordeum vulgare Gossypium hirsutum Nicotiana tabacum	Oryza sativa Glycine max Glycine max Glycine max Oryza sativa Glycine max
AF176641 AJ292743 Y13676 Y13675 D63951 AY027510 D78609 AB021736 X58577 L34551 U57389 Y09013 X97903 Y10809 U46217 1989 AF223643 AF223643 AF223643 AF22366 AF336286 X70876 AF336286 X70879 X70879 X70879 X70879 X70879	AB029161 AB029161 AB029160 AB029159 Y11351 AB029162
	BAA2338.1 BAA2338.1 BAA81732.1 BAA81731.1 BAA81730.1 CAA72186.1 BAA81733.2
Oryza sativa Oryza sativa Raphanus sativus Pinus radiata Oryza sativa Triticum aestivum Zea mays Hordeum vulgare Triticum aestivum Zea mays Cucurbita maxima Oryza sativa Solanum tuberosum Zea mays Hordeum vulgare Triticum aestivum Zea mays Limnanthe maxima Oryza sativa Simmondsia chinensis Limnanthes douglasii Brassica napus	Phaseolus vulgaris Phaseolus acutifolius Petroselinum crispum Glycine max Petroselinum crispum
1983 AB001882 AB001888 AF052690 AF052690 AF001136 AB001885 AB001884 AB001884 AB001883 AB001884 AB001884 AB001886 AD012284 AC00991 AJ242853 U82230 AJ000991 AF082033 US0771 Y11007 AJ291728 AF333040 AF085499 AF054499	1988 AF350505 AY026054 AJ292745 Y10685 AJ292744
SEQ ID NO. 1 BAA33206.1 BAA33206.1 AAC35496.1 AAD22518.1 BAA33203.1 BAA33203.1 BAA33204.1 BAA33201.1 BAA3200.1 BAA3200.1 BAA3200.1 BAA3200.1 BAA33201.1 BAA33201.1	ुन्न्न्न्

X89828	X65742 Spinac	9.1 D13512 Oryza sativa 0.1 D50301 Oryza sativa	D50307 Oryza	X53130	AJ005041 Cicer		Y18576 Flaveria trinervia	A0066535	0.1 AB025002 Cicer arietinum		1996	8.1 Y10156 Brassica napus	7.1 Y10155 Brassica napus	5.1 AJ223307 Brassica napus	1.1 U39289 Brassica napus	2.1 U39319 Brassica napus		NO. 1997	D83968		M32885	1 D86351 Glycine ma	1 X95342 Nicotiana	1 X96784	1 NF155332	AB025030	AF218296	X70824 Solanum	U72654 Eustoma	AF191772	AJ238612	5.1 Y09423 Nepeta racemosa	6.1 AB022733 Glycyrrhiza echinata	8.1 X71657 Solanum melongena	AB001380	4.1 AB037245 Asparagus officinalis	8.1 AF022459 Glycine max	1.1 AF214007 Brassica napus
		ntum BAA02729.1 BAA08830.1	BAA08845.1	CAA37290.1	CAA06308.1	CAA61947.1	CAC34412.1	BAA78593.1	BAA76430.1		SEQ ID NO.	ntum CAA71238.1			AAC49181.1	AAC49182.1		SEQ ID NO.	BAA12159.1	a AAC32274.1	a AAA32913.1		CAA64635.	CAA65580.	AAD56282.	BAB12433.1	AAG44132.1	CAA50155.	AAB17562.1			CAR70575.1	BAA74466.1	CAA50648.1	BAA22423.1	ystallinum	AAB94588.1	AAG14961.
Pimpinella brachycarpa	Nicotlana tabacum	Lycopersicon esculentum	Feculita x liybiida	Grycine man Orvza sativa	Nicotiana tabacum	Nicotiana tabacum	Orvza sativa	Oryza sativa	Gossypium hirsutum	Oryza sativa	Oryza sativa	č		Joseph Marking Sculentum	Gossypium hirsutum	Zea mays	Zea mays	ı		Nicotiana paniculata	tiana	Solanum tuberosum	Oryza sativa	Pisum sativum	Pisum sativum	Avena sativa	Spinacia oleracea	Dunaliella salina	Dunaliella salina	Chlamydomonas reinhardtii	Chloroplast Chlamydomonas	•	Scherffelia dubia	Orvza sativa	Fragaria x ananassa	Mesembryanthemum co	Persea americana	Zea mays
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AF161711 E	AB028650	X99134	78877	AB029103	1172762	AR028651	V11350	AC037425	AF336285	D88620	X96749	X95297	163060 K	AF 330202	DE336284	•	AF210616		1995	AB027002	AB027001	X10380	D13513	M97476	M97477	AF216582	X66814	AF329674	AF329673	69669X	S72951	reinberdti	A.TO11516	AF017362	DE308587	AF003124	A.7133146	

Barbarea vulgaris					Arabis alpina	Arabis alpina		Arabis procurrens	Arabis jacquinii	Arabis alpina	Cardamine amara	Arabis procurrens		Leavenworthia stylosa	Arabidopsis griffithiana	Arabidopsis suecica	Arabidopsis korshinskyi	Arabidopsis lyrata subsp.		Arabidopsis lyrata subsp. J	Cadia eterul and Allen		Arabidopsis lyrata subsp.	•	Arabidopsis lyrata subsp.				Orvza sativa	Glycine max	Disim sativim	Diam sativim				Petunia x hybrida	×	Petunia x hybrida	Petunia x hybrida	
AF110458	AF110457	AF110440	AF110426	AF110445	AF110427	AF110429	AF110437	AF110455	AF110446	AF110428	AF110430	AF110454	AF110444	AE037560	AB015504	AB015507	AB015505	AJ251281		AJ251280	0	AJZ512/9	p.7251278	1	7751277	AU4.316.11		1000	2001 DF14028	T03020	716937	V69218	A00216	CT700V	3000	2003 AB006601	AB006600	AB006599	AB000451	
AAF23556.1	AAF23555.1	AAF23538.1	AAF23524.1	AAF23543.1	AAF23525.1	AAF23527.1	AAF23535.1	AAF23553.1	AAF23544.1	AAF23526.1	AAF23528.1	AAF23552.1	AAF23542.1	AAC79418.1	BAA34682.1	BAA34685.1	BAA34683.1	CAB72921.1	petraea	CAB72920.1	petraea	CAB72919.1	petraea	CAB/2510.1	perraea	CAB / 291 / . 1	perraea		SEC ID NO.	1.00202444	AAA33944.1	CAM48299.1	CAM48300.1	CAA48291.1		SEQ 1D NO.	BAA21922.1	BAA21921.1	BAA19110.1	
Eschscholzia californica	Brassica nabus	Toronia huhrida	rechacholyta californica	Nicotiana tabacum			פסוים (איני מיני) מ	7 to		Drabie gemmifera				Atable youniters	Arabidoneis belleri	Arabidopsis narrows		Halimolobos perplexa var.	3-23	Arabis gemmifera	Arabis Lyallii	·.d	Arabidopsis lyrata subsp.			Arabis gemmifera					Arabis hirsuta	Arabis blepharophylla	Arabis blepharophylla	Aubrieta deltoidea	Arabis blepharophylla	Arabidopsis lyrata subsp.		Capsella rubella hestis drimmondii	Brassica oleracea	
AF014800	DE214008	AE213000	AB026132	Arotagor aricesso	AE100352		Lyty	14/6/2		2000	70740	# C	Aritogos	D63459	D63455	AF110442	AF110453	10001	75501130	D63456	AF110448	AF110450	AF110452		D63453	D63452	D63458	AF110451	AF110447	AF110438	AF110443	AF110433	AF110432	AF110425	AF110431	AE110449		AF110435	AF110434	
1 6405744	1.00001044	AAG14302.1	BAA840/2.1	•	AAD4/832.1		SEQ ID NO. 1	AAB01567.1			BAA22976.1	BAA229/3.1	AAE2353/.1	BAA22978.1	BAA22974.1	AAF23540.1	AAF23551.1	petraea	AAFZ3339.1	HANDOOTS 1	AAF23546.1	AAF23548.1	AAF23550.1	petraea	BAA22972.1	BAA22971.1	BAA22977.1	AAF23549.1	AAF23545.1	AAF23536.1	AAE23541.1	AAF23531.1	AAF23530.1	AAF23523.1	AAF23529.1	AAF23547.1	lyrata	AAF23533.1	AAF23534.1 AAF23532.1	

		448		
Nicotiana tabacum Nicotiana tabacum Glycine max Glycine max Lycopersicon esculentum Zea mays Glycine max Lycopersicon esculentum Chenopodium rubrum Zea mays Sesbania rostrata	Oryza sativa Oryza sativa Lupinus luteus Lupinus luteus Lupinus luteus Lupinus luteus	Glycine max Glycine max Antirrhinum majus Catharanthus roseus Glycine max Petroselinum crispum Nicotiana tabacum Adiantum capillus-veneris Petunia x hybrida	Morinda citrifolia Lycopersicon esculentum Lycopersicon esculentum	Brassica juncea Lycopersicon esculentum Phaseolus vulgaris Brassica rapa
X92967 X92966 X62820 X62303 AJ243451 U50064 226331 AJ243452 Y10161 U10077 Z75660	AF002491 AB024986 U24193 AF126106 U24194 AF126107 AF126108	D50871 D50869 X76122 D86386 D50870 1.34207 237978 D82349	2009 Y15113 Z21792 Z21793	2010 Y10984 AF017984 AF258320 2011 AF022217
CAA63543.1 CAA44632.1 CAA44188.1 CAA41188.1 CAB46641.1 AAC50013.1 CAA81232.1 CAA71243.1 CAA71243.1 CAA71243.1 CAA99990.1	BAAB6628.1 BAAB6628.1 AAC61888.1 AAD31789.1 AAC61889.1 AAD31790.1 AAC24245.1	BAA09467.1 BAA09465.1 CAA53728.1 BAA20411.1 BAA09466.1 AAC41681.1 CAB81558.1 BAA11560.1 CAB58998.1	SEQ ID NO. CAA75386.1 CAA79855.1 CAA79856.1	SEQ ID NO. CAA71878.1 AAB71231.1 AAF98157.1 SEQ ID NO. AAB72109.1
Petunia x Octunia x	Petunia x hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida Of Petunia x hybrida Sof Petunia x hybrida Sof Datisca glomerata Sof Petunia x hybrida	335 6 6	189 Lycopersicon esculentum 197 Antirrhinum majus 190 Lycopersicon esculentum 188 Pisum sativum 188 Lycopersicon esculentum 189 Lycopersicon esculentum	Aycoperst Medicago Nicotiana Antirrhin Medicago Chenopodi
AB006604 AB006603 AB006602 AB006598 AB006598 AB035133 AB006605 AB035132 AB035132 AB0360597 AF332876	D26086 D26085 D26083 D26084 AB006606 AB000455 AF119050	2008 AJ250396 Y10162 AJ211892 AJ011892 AJ011893	AJO02589 AJ250397 AJ002590 AB008188 AJ002588	AJZ45415 X88864 AJ132929 AJ011894 AJ250398 AJ132930 AJ011776 X76123
BAA21926.1 BAA21925.1 BAA21924.1 BAA21920.1 BAA219111.1 BAA21927.1 BAA21927.1 BAA21927.1 BAA21919.1 AAK01713.1	BAA05079.1 BAA05078.1 BAA05076.1 BAA05077.1 BAA21928.1 BAA19114.1 AAD26942.1		CAB60837.1 CAB61222.1 CAB60838.1 BAA33153.1 CAB60836.1	CAB51/88.1 CAA61334.1 CAB40540.1 CAA09854.1 CAB61223.1 CAB40541.1 CAA09769.1

Cicer arietinum Nicotiana tabacum Oryza sativa	Solanum tuberosum Nicotiana tabacum	Lotus japonicus Pisum sativum	Olea europaea Phaseolus vulgaris	Drassica napus	Triticum aestivum	Triticum aestivum	Triticum aestivum	Triticum aestivum	Triticum aestivum	Solanum tuberosum		Solanum tuberosum	Orvza sativa	Pisum sativum	Oryza sativa		Nicotiana tabacum		Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Spinacia oleracea	Spinacia oleracea	Beta vulgaris	Beta vulgaris
2016 AB026262 AF211532 AB023482	2017 L02830 AF211529	AJ251808 U13736	AF078680 AF030033	AE'0/86/9 U10150	049105	049103	048693	U48689	U48242	U20297	020296	U20295	U20294 118914	013882	212828	6	9185UX	AF215823	AF162665	AB044537	AB030939	AB037421	U69142	M31480	X58463	X58462
SEQ ID NO. 2 BAA77204.1 AAG43550.1 BAA78746.1	SEQ ID NO. 2 RAA33811.1 RAG43547.1	CAB63264.1 AAA92677.1	AAF31152.1 AAD10245.1	AAF31151.1 AAA19571.1	AAC49587.1	AAC49586.1 AAC49585.1	AAC49584.1	AAC49580.1	AAC493/9.1	AAA85157.1	AAA85156.1	AAA62351.1	AAA85155.1	AAA333900.1	CAA78288.1		SEQ ID NO.	AAG43988.1	AAF73828.1	BAB19052.1	BAA96793.1	BAA96794.1	AAB41696.1	AAA34025.1	CAA41377.1	CAA41376.1
Daucus carota Nicotiana tabacum Cuscuta japonica Quercus suber Castanea sativa	Glycine max Glycine max Glycine max	Medicago sativa Helianthus annuus Helianthus annuus	Helianthus annuus Daucus carota	Fragaria x ananassa	Fisum sativam Helianthus annuus	Glycine max	Papaver somniferum	Helianthus annuus	Oryza sativa	Oryza sativa	Oryza sativa Oryza sativa	Chenopodium rubrum	Oryza sativa	Oryza sativa	Oryza sativa	Disum sativum	Oryza sativa	Pennisetum glaucum	Pennisetum glaucum	Lycopersicon escurentum	Lea mays	nycoperation economic	rseudousuya mentarata roosossi oos escul entum	Dycoperation escurcing	ryiticum aestivum	Oryza sativa
X53851 AF166277 AB017273 AJ000691 AJ009880	M11395 X01104 M11318	X58711 U46544 705153	X59701 X53850	U63631	M33899 U46545	M11317	X94193 U08601	AJ237596	083669	M80939	VE0835	X53870	M80938	083670	U81385	AF12325/ M33900	U83671	X94191	~ :	AF123255	X65/25	X56138		AF123256	X92984 X13431	X75616
CAA37847.1 AAD49336.1 BAA33062.1 CAB36910.1 CAA08908.1			CABU8441.1 CAA42222.1		AAA33672.1 AAB63311.1		CAA63903.1	CAB55634.2	AAC78392.1		•	CAA43210.1		AAC78393.1	.	AAD30454.1 AAA33671.1	•	CAA63901.1	CAA63902.1	AAD30452.1	CAA46641.1	CAA39603.1	0 (AAD30453.1	ન છ	CAA51/85.1 CAA53286.1

CAA49425.1 BAB18544.1 AAB58165.1 BAA21098.1 BAA21098.1 BAAC4926.1 AAC49267.1 AAC49267.1 AAC4926.1 AAC433076.1 AAC433076.1 AAC433075.1 AAC433075.1 AAC433075.1 AAC433075.1	X69770 AB043540 AF000132 AF017150 AB001348 AB043539 D26448 U12196 U12195 X75327 AF196292 U87848 AF323586 X75326 AF045770	Atriplex hortensis Avicennia marina Amaranthus hypochondriacus Amaranthus hypochondriacus Oryza sativa Avicennia marina Hordeum vulgare Sorghum bicolor Sorghum bicolor Brassica napus Pisum sativum Apium graveolens Nicotiana plumbaginifolia Oryza sativa Zea mays Sorghum bicolor	AAA33392.1 CAA32109.1 AAE20948.1 AAA33636.1 AAC25775.1 CAA44881.1 CAA42818.1 AAD27877.1 CAA49149.1 CAA38025.1 CAA38025.1 CAA57408.1 CAA57408.1 CAA5723.1 BAA77273.1	M12152 X13909 AF207690 M23532 AF072931 X71965 X63197 X60275 AF139465 X69215 X54090 AF279248 X81809 X69434 AB026686 AF003128	Lemna gibba Oryza sativa Daucus carota Physcomitrella patens Medicago sativa Pyrobotrys stellata Hordeum vulgare Lycopersicon esculentum Vigna radiata Pisum sativum Gossypium hirsutum Vigna radiata Picea abies Pyrobotrys stellata Pyrobotrys stellata Pyromitrella patens Mesembryanthemum crystallinum Oryza sativa
	2020 AF123503 X60033 AP002094	Nicotiana tabacum Glycine max Oryza sativa	CAA43804.1 CAA57409.1 AAA34142.1 AAB19040.1 CAA28639.1	X61610 X81810 M17559 U51632 X04966 U73218	Brassica napus Picea abies Lycopersicon esculentum O Pinus palustris Petunia x hybrida Triticum aestivum
SEQ ID NO. CRA79702.2 BAA77337.1 BAA36181.1 SEQ ID NO. CRA33330.1 CRA41407.1 AAE44703.1 CRA41406.1 AAA34159.1 CRA32197.1 AAE33711.1 AAE33711.1 AAE3731.1 AAE90200.1 CRA57877.1	2022 221493 AB019533 D88272 2025 X15258 X58517 AF241525 X81962 X58516 M20241 X14036 M21317 AF002248 AF094775 AF287276	Solanum tuberosum Oryza sativa Hordeum vulgare Lycopersicon esculentum Pinus sylvestris Alonsoa meridionalis Pisum sativum Pinus sylvestris Lycopersicon esculentum Lycopersicon esculentum Petunia x hybrida Pisum sativum Oryza sativa Hordeum vulgare Nicotiana tabacum		2028 AF047694 249699 AF037988 AF037987 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037986 AF037987 AF037988 AF037987 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF037988 AF03798 AF03798 AF03798 AF03798 AF03798 AF03798 AF0379	Vernicia fordii Nernicia fordii Ricinus communis Fritillaria agrestis Fritillaria agrestis Fritillaria agrestis Fritillaria agrestis Fritillaria agrestis Fritillaria agrestis Oryza sativa Oryza sativa Brassica napus Brassica napus

Cuscuta japonica Pisum sativum Orvza sativa	Helianthus annuus Helianthus annuus Castanea sativa	Pennisetum glaucum Oryza sativa Zea mays	ᇩ	Agrostis stolonifera var.			T	Incoportion panipulation									Lycopersicon pimpinellifolium	Oryza sativa	Oryza sativa	Lycopersicon hirsutum	Hordeum vulgare		Oryza sativa	Oryza longistaminata			Stylosanthes hamata	Nicotiana sylvestris	Oryza sativa	Nicotiana tabacum	Nicotiana sylvestris	Catharanthus roseus	Catharanthus roseus	Lycopersicon esculentum
AB017273 M33900 D12635	Z95153 X59701 AJ009880	X94191 U83671 X65725	AF089842	AE007762		2000	20000	AJUU2235	AFUSSASS	Aronna	AJUU2237	AF053995	U15936	AJ002236	AF053994	AF053997	AF053996	AP002521	AP002539	AJ002235	AF166121	AL117265	U37133	072723	,	2038	091857	AB016265	AB037183	AB024575	AB016264	AJ251250	AJ251249	U89256
BAA33062.1 AAA33671.1 BAA02160.1	CAB08441.1 CAA42222.1 CAA08908.1	CAA63901.1 AAC78394.1 Caa46641 1	AAD09181.1	AAC01560.1	palustris			CAMU52/6.1	AAC/8591.1	AAC/8396.1	CAA052/9.1	AAC78593.1	AAA65235.1	CAA05274.1	AAC78592.1	AAC78595.1	AAC78594.1	BAA96776.1	BAB08215.1	CAA05268.1	AAD50430.1	CAB55409.1	AAC49123.1	AAC80225.1		SEQ ID NO.	AAD00708.1	BAA97123.1	BAB03248.1	BAA76734.1	BAA97122.1	CAB96900.1	CAB96899.1	AAC49740.1
Hordeum vulgare Hordeum vulgare	Lycopersicon esculentum Lycopersicon esculentum	Mercurialis annua	Corylus avellana	Malus x domestica		Medicago sativa	Pisum sativum	Glycine max	Helianthus annuus	Lycopersicon esculentum	Lycopersicon esculentum	Helianthus annuus	Lycopersicon esculentum	Pseudotsuga menziesii	Pennisetum glaucum	Glycine max	Lycopersicon esculentum	Pseudotsuga menziesii	Papaver somniferum	Quercus suber	Helianthus annuus	Oryza sativa	Daucus carota	Chenopodium rubrum	Glycine max	Oryza sativa	Oryza sativa	Oryza sativa	Daucus carota	Pennisetum glaucum	Glycine max	Oryza sativa	Fragaria x ananassa	Brassica rapa
AF021257 AF021256	2033 M98466 U63374	U79772	2034 AF021807	AF161179	X58710	X58711	M33899	M11318	046544	AF123257	AF123255	046545	AF123256	X92983	X94193	X01104	X56138	X92984	008601	AJ000691	AJ237596	M80939	X53852	X53870	M11395	U81385	M80938	X60820	X53851	X94192	M11317	083669	063631	AF022217
AAB72097.1 AAB72096.1		~	AAD15628.1		CAA41546.1	CAA41547.1	AAA33672.1	AAB03893.1	AAB63310.1	AAD30454.1	AAD30452.1	AAB63311.1	AAD30453.1	CAA63570.1	CAA63903.1	CAA25578.1	CAA39603.1	CAA63571.1	AAA61632.1	CAB36910.1	CAB55634.2	AAA33910.1	CAA37848.1	CAA37864.1	AAA33975.1	AAB39856.1	AAA33909.1	CAA43210.1	CAA37847.1	CAA63902.1	AAA33974.1	AAC78392.1	AAC39360.1	AAB72109.1

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Lycopersicon esculentum Nicotiana plumbaginifolia Nicotiana plumbaginifolia Sesbania rostrata Solanum tuberosum Oryza sativa Phaseolus vulgaris Lycopersicon esculentum Iycopersicon esculentum Solanum tuberosum	Raphanus sativus Raphanus sativus Raphanus sativus Brassica napus Raphanus sativus	コット・ユ	Brassica napus Flaveria bidentis Flaveria chloraefolia Flaveria chloraefolia	Medicago truncatula Brassica napus Pisum sativum Pisum sativum
M60166 M80489 M27888 AJ286746 X76535 D31843 X94936 AF275745 AF179442	2046 U18557 X97318 U18556 U59459 X97319	2048 AP000615 Z83834 Y14573 AJ005341 2049 AF000307 AF000306	AF000305 U10275 M84135 U10277 M84136 2050	AJ238651 AJ238651 AF018174 U35830 X63537
AAA34173.1 AAA34094.1 AAA34052.1 CAC28221.1 CAA54045.1 BAA06629.1 CAA64406.1 AAD55399.1 CAA54046.1	SEQ ID NO. AAA69541.1 CAA65983.1 AAA69540.1 AAB03224.1 CAA65984.1		AAC63111.1 AAA61638.1 AAA33342.2 AAA87399.1 AAA33343.1 SEQ ID NO.	
Lycopersicon esculentum Nicotiana tabacum Lycopersicon esculentum Oryza sativa Solanum tuberosum Nicotiana sylvestris Nicotiana tabacum Matricaria chamomilla Nicotiana tabacum Brassica napus	Oryza sativa Nicotiana tabacum Solanum tuberosum	Oryza sativa Oryza sativa Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Zea mäys Mesembrvanthemum crystallinum	Glycine max Glycine max Dunaliella bioculata Glycine max Brassica oleracea Oryza sativa Prunus persica	Oryza sativa Vicia faba Oryza sativa Nicotiana plumbaginifolia Kosteletzkya virginica Sesbania rostrata Nicotiana plumbaginifolia
U89257 D38123 U89255 AF190770 U77655 AB016266 AF057373 AB035270 U81157	2040 AP001129 X61146 2043 AJ001310	2045 AP001072 AP001036 AP001111 AF050496 M96324 AF050495 AF145478	א או א	D10207 AJ310523 AF110268 M80490 AF029257 AJ286749
AAC49741.1 BAA07321.1 AAC50047.1 AAF05606.1 AAC29516.1 BAA97124.1 AAC62619.1 BAA87068.1 AAB38748.1	SEQ ID NO. 3 BAA90610.1 CAA43454.1 SEQ ID NO. 3 CAA04670.1	SEQ ID NO. BAA8954.1 BAA8191.1 BAA90510.2 AAD11618.1 AAD11617.1 AAD11617.1 AAD11617.1 AAD11617.1	AAG28436.1 CAA63790.1 AAG28435.1 CAA68234.1 AAB58910.1 CAB69824.1	BAA01058.1 CAC29435.1 AAD20330.1 AAA34098.1 AAB84203.1 CAC28224.1 AAD46188.1

Spinacia oleracea Nicotiana tabacum Zea mavs		Hordeum vulgare			Pinus taeda	Spinacia oleracea	Lycopersicon esculentum	Ipomoea nil				Coording birenting	GOSSYPTUM MATSACOM	Kumex paruserra	Nicotiana tabacum	Beta vulgaris	Petunia x hybrida 5	Amaranthus hypochondriacusi	Solanum tuberosum	Pinus thunbergii	Lycopersicon esculentum	Lemna gibba	Viqna radiata						Incoparation esculentum	Pseudotsuda menziesti		Oryze saczya	GIIINGO DITODA	Zea mays	Solanum tuberosum	Lycopersicon esculentum	Solanum tuberosum	Solanum tuberosum	Nicotiana sylvestris	
AF215851 AF215852 aF215854	1. C. C. T. Z. T. U.	2066 x84308		2067	AF101788	U76296	AF243181	AB035146		9000	מייי מייי	AFOSSOS	X54090	AF165529	X58230	X13865	X04966	X74732	235160	X61915	M17558	M12152	AF279248	x57082	AF061577	D00642	1151630	X12407	044714	07074	·	AE022/39	773701	X68682	U21111	M14443	U21113	020983	AB012637	
AAE74565.1 AAE74566.1		SEQ ID NO. 2		SEO ID NO. 2		AAC32448.1	DDF66243.1	DANOOA81 1	T-T0106WWG			AAC34983.1	CAA38025.1	AAD48017.1	CAA41188.1	CAA74179.1	CAA28639.1	CAA52750.1	CAA84525.1	CAA43907.1	AAA34141.1	AAA33392.1	1 5000 June	1.02C014A7	1.00021744	FACELJ994.1	BAR00337.1	AAB13040.1	CAMS1//3.1	AAAS4142.1	CAR69023.1	AAB82142.1	AAA60965.1	CAA48641.1	AAA80591.1	AAA34147.1	AAA80593.1	AAA80589.1	BAA25391.1	
Mesembryanthemum crystallinum Spinacia oleracea	Picea mariana Orvza sativa	Nicotiana tabacum	Triticum turgidum subsp. durum	Brassica napus		Kicinus communits		Chlamydomonas reinnardui	Oryza sativa	Oryza sativa	Triticum aestivum	Nicotiana tabacum	Oryza sativa	and and and	Brassica Oleracea Var.		מנותמת מסיים מיים	Brassica Hapus		. '	Secale Cereare	Phalaris coerurescens	_	Secale cereale	Oryza sativa	Chlamydomonas reinhardtil		Chlamydomonas reinhardtii	Triticum aestivum	Brassica napus	Brassica napus	Spinacia oleracea	Pisum sativum	Pignm sativum		Organ cattura			Solanum tuberosum	
AF069314 X14959	AF051206 AB053294	211803	AJ001903	U59380	D8 7 98 4	270677	X80887	X78822	092541	D26547	AF286593	X58527	D21836	100100K		FF0C/73W		0593/9	AF159387	AF159385	AF159386	AF159388	AF159389	AF186240	AP002912	X78821	X8088	X62335	AJ005840	AF160870	076831	X51462	876269	1135831	V51463	7705074	r	7 10 0	2034 AF215853	
AAC19392.1 CAA33082.1	AAC32111.1			AAB53695.1		CAA94534.1	CAA56850.1	CAA55399.1	AAB51522.1	BAA05546.1		CDD41415.1	1 9970440	1.10010444	BAA23061.1	AAG35///.1	alboglabra	AAB53694.1	AAD49232.1	AAD49230.1	AAD49231.1	AAD49233.1	AAD49234.1	AAD56954.1	BAB39913.1	CAA55398.1	CAA56851.1	CAA44209.1	CAA06735.1	AAD45358.1	AAB52409.1	CAA35826.1	ר טטפאייט	CAA33300.1	•	CAA33827.1	CAAU6/30.1		AAF74567.1	

Pinus thunbergii Rumex palustris	Oryza sativa	Fisum sacivum	Glycine max	Plastid Spinacia oleracea	Lycopersicon esculentum	Cicer arietinum	Medicago sativa	Euphorbia esula	Lemna gibba	Nicotiana sylvestris	Mesembryanthemum crystalli	Nicotiana sylvestris	Solanum tuberosum	Cucumis sativus	Glycine max	Solanum tuberosum	Solanum tuberosum	Mesembryanthemum crystall im um	Nicotiana tabacum	Fagus crenata	Lycopersicon esculentum	Ginkgo biloba	Lycopersicon esculentum			Glycine max		Nicotiana tabacum	Nicotiana tabacum	Zea mays	Zea mays	Oryza sativa	Pseudotsuga menziesii	Zea mays			Cucumis sativus	Cucumis sativus	Cucurbita sp.
X61915 AF165529	AF061577	RECOCY	U01964	X14341	M17559	AJ131044	AF072931	AF220527	M29334	AB012638	AF003129	AB012640	U20983	M16057	X12981	U21111	021113	AF003128	X58229	AB006081	M14444	L23107	M14443		2070	AF031241	AF338252	X60058	X60057	U58209	U58208	AF006825	249764	M59449		2071	X14609	X58542	D49432
CAA43907.1 AAD48017.1	AAC15992.1	CAA39883.1	AAA50172.1	CAA32526.1	AAA34142.1	CAA10284.1	AAC25775.1	AAF26741.1	AAA33396.1	BAA25393.1	AAB61238.1	BAA25395.1	AAA80589.1	AAA33124.1	CAA31419.1	AAA80591.1	AAA80593.1	AAB61237.1	CAA41187.1	BAA24493.1	AAA34148.1	AAA60965.1	AAA34147.1		SEQ ID NO.	AAB86942.1	AAK21920.1	CAA42660.1	CAA42659.1	AAC49900.1	AAC49899.1	AAB63469.1	CAA89834.2	AAA92743.1			CAA32764.1	CAA41434.1	BAA08410.1
Nicotiana sylvestris Nicotiana sylvestris	uberosum	Nicotiana sylvestris	Nicotiana sylvestris	Polystichum munitum	Picea abies	Glycine max	Solanum tuberosum	Nicotiana sylvestris	Nicotiana sylvestris		Nicotiana sylvestris	Zea mays	Lycopersicon esculentum	Picea abies	Nicotiana sylvestris	Physcomitrella patens	Pinus contorta			Viqna radiata	Pisum sativum	Daucus carota	Brassica napus	Brassica napus	Brassica napus	Lemna gibba	Amaranthus hypochondriacus	Nicotiana tabacum	Petunia x hybrida	Prunus persica	Beta vulgaris	Lycopersicon esculentum	Pseudotsuga menziesii	Gossypium hirsutum	Pinus palustris	Solanum tuberosum	Zea mays	Pisum sativum	Oryza sativa
AB012641 AB012639	021114	AB012637	AB012638	M34396	X81810	U01964	U21112	AB012640	AB012636	X58229	AB012637	X14794	M14444	X81809	AB012638	AB026686	X67714		2069	AF139465	X69215	AF207690	X61609	x61610	X61608	M12152	X74732	X58230	X04966	AF039598	Y13865	M17558	249749	X54090	U51632	235160	X14794	X57082	D00642
BAA25396.1 BAA25394.1	AAA80594.1	BAA25389.1	BAA25392.1	AAA68425.1	CAA57409.1	AAA50172.1	AAA80592.1	BAA25395.1	BAA25388.1	CAA41187.1	BAA25390.1	CAA32900.1	AAA34148.1	CAA57408.1	BAA25393.1	BAA77273.1	CAA47950.1		SEO ID NO. 2		CAA49149.1	AAF20948.1	CAA43803.1	CAA43804.1	CAA43802.1	AAA33392.1	CAA52750.1	CAA41188.1	CAA28639.1	AAC34983.1	CAA74179.1	AAA34141.1	CAA89823.1	CAA38025.1	AAB19040.1	CAA84525.1	CAA32900.1	CAA40365.1	BAA00537.1

Petunia x hybrida Manihot esculenta Perilla frutescens	Petunia x hybrida	Manihot esculenta	centiana tititora	mi merongena	Vigina mungo	recuird A Hybrada	FOISY CILLA A LINCELINGULA	Petunia x nybrida	Petunia x hybrida						Nicotiana tabacum	Lycopersicon esculentum	Dorotheanthus bellidiformis	Scutellaria baicalensis G	Solanum tuberosum	Vigna mungo	Manihot esculenta	Phaseolus vulgaris	Phaseolus lunatus	Petunia x hybrida	Solanum berthaultii	Nicotiana tabacum	Manihot esculenta	Vigna mungo	Brassica napus	Verbena x hybrida	Sorghum bicolor	Citrus unshiu	Petunia x hybrida	Solanum melongena	Manihot esculenta	Manihot esculenta	Gentiana triflora	Forsythia x intermedia
AB027454 X77459 AB013596	AF165148	X77463	082180	X//369	ABULZIIS	208022	AF12/218	X/1059	X71060	1	7/07	AE346431	U32644	032643	AF346432	X85138	X18871	AB031274	U82367	AB012114	X77460	AF116858	AF101972	AB027455	AF006081	AF190634	X77462	AB012116	AE287143	AB013598	AF199453	AB033758	AB027454	X77369	X77461	X77459	D85186	AF127218
BAA89008.1 CAA54609.1 BAA36421.1	AAD55985.1	CAA54613.1	BAA12/37.1	CAA54558.1	BAA36411.1	CAA81057.1	AADZ1086.1	CAA50376.1	CAA50377.1			AAK28303.1	AAB36653.1	AAB36652.1	AAK28304.1	CAA59450.1	CAB56231.1	BAA83484.1	AAB48444.1	BAA36410.1	CAA54610.1	AAD51778.1	AAD04166.1	BAA89009.1	AAB62270.1	AAF61647.1	CAA54612.1	BAA36412.1	AAF98390.1	BAA36423.1	AAF17077.1	BAA93039.1	BAA89008.1	CAA54558.1	CAA54611.1	CAA54609.1	BAA12737.1	AAD21086.1
Cucurbita sp. Cucurbita pepo		Glycine max		Glycine max	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Nicotiana tabacum			Nicotiana tabacum					Tycoparation esculentum	Scutellaria baicalensis	Solanim tiberosum	_	Manihot esculenta		Petunia x hybrida	Phaseolus vuldaris	Nicotiana tabacum	Citrus unshiu	Viena mingo	Verbena x hvbrida				๙	
D49433 U01067	2072	D63781	X78547	X78548	002495	002497	U02494	U02496	U02498	AP000570	AP000492	AP000570	AP000492	057350		2076	1132643	AF346432	AF346431	132644	158817	1,0011	AB031274		DB012114		AF101972	AB027455	AF116858	AF190634	AB033758	AB012116	AB013598	AF199453	X77461	x77462	AF287143	AB000623
BAA08411.1 AAB00105.1	SEO ID NO. 2	-	CAA55293.1	CAA55294.1	AAA81890.1	AAA81892.1	AAA81889.1	AAA81891.1	AAA81893.1	BAA85201.1	BAA84626.1	BAA85202.1	BAA84627.1	1 30000 ava		CN OT OBS		1.2000dag	AAK28304.1	AAN26303.1	AAB36633.1	CABSOZSI.I	CAA39430.1	•	1.0195440	1.01505447	2.010144 1.01044	1.001F0GRA	1 82223744	ו האושמת	ו פנטנסתעם	ו כנוזקניתם	BAN36423 1	1.02500AG	ר רואסקממט	CAR54612 1	1.31010100 1.0963944	BAA19155.1

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Spinacia oleracea Vigna angularis Populus nigra Spinacia oleracea Spinacia oleracea Phaseolus vulgaris Oryza sativa Spinacia oleracea Zea mays Arachis hypogaea Pinus pinaster Nicotiana sylvestris Oryza sativa Zea mays Spinacia oleracea Spinacia oleracea Spinacia oleracea Gossypium hirsutum Spinacia oleracea Linum usitatissimum	Petroselinum crispum Linum usitatissimum Asparagus officinalis Spinacia oleracea Glycine max Populus balsamifera subsp. Armoracia rusticana Linum usitatissimum Glycine max Nicotiana tabacum Spinacia oleracea Scutellaria baicalensis Spinacia oleracea Glycine max Nicotiana tabacum Spinacia oleracea Glycine max Lycopersicon esculentum Armoracia rusticana Nicotiana tabacum Spinacia oleracea Glycine max Lycopersicon esculentum Armoracia rusticana Nicotiana tabacum Stylosanthes humilis
Y10463 D11337 D83225 Y10465 AF244921 AF149279 APO01383 APO01551 AJ251254 AJ251254 AJ4103 APO02482 AJ401276 Y10468 AF155124 X16776 U59284	L24120 L24120 AB042103 AF244922 U51192 X97350 D90116 AF049881 U51191 D42064 X10464 X10464 AB027752 AF244923 AF145350 L13653 X57564 D42065
CAA71489.1 BAA01950.1 BAA11853.1 CAA71491.1 AAF63024.1 AAD37429.2 BAA92500.1 BAA92967.1 CAC21391.1 CAC21391.1 AAB0643.1 CAC21393.1 CAC21393.1 CAC21393.1 CAC21393.1 CAA71494.1	AAA98491.1 AAA98491.1 AAB48184.1 BAA94962.1 AAF63025.1 AAD11482.1 CAA66036.1 trichocarpa BAA1144.1 AAD11481.1 BAA07663.1 CAA77387.1 CAA80502.1 BAA63026.1 AAD37376.1 AAD37376.1 AAD37376.1 AAD37376.1
Vigna mungo Nicotiana tabacum Petunia.x hybrida Manihot esculenta Perilla frutescens Vitis vinifera Vitis vinifera Vitis vinifera Clycine max Lycopersicon esculentum Glycine max	Triticum aestivum Zea mays Brassica napus Medicago sativa Brassica napus Triticum aestivum Triticum aestivum Triticum aestivum Triticum aestivum Glycine max Brassica napus Brassica napus Brassica napus Brassica napus Triticum aestivum Triticum aestivum Triticum aestivum
AB012115 AB000623 AF165148 X77463 AB013596 AB002818 AF000372 AB047098 AB047098 AB047096 C078 U07745 AF163149 AF163150 L38260 U34393	0.34393 AF029895 U19183 AJ131866 L25042 AJ131865 U39321 X77576 U10187 AF029897 AF029897 AF029897 AF029897 AF029897 AF029897 AF0301 U08846 X77374 X10302 L39267 L39267 L77080 M37637 X94943 X85230
BAA36411.1 BAA19155.1 AAD55985.1 CAA54613.1 BAA36421.1 BAA19659.1 AAB81683.1 BAB41025.1 BAB41025.1 BAB41025.1 BAB41025.1 AAA53140.1 AAC02267.1 AAC02267.1 AAC3573.1 AAC31659.1 AAC41659.1	

Chlamydomonas sp. W80 Glycine max Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Capsicum annuum Glycine max Oryza sativa Triticum aestivum	Lycopersicon esculentum Petunia x hybrida Pimpinella brachycarpa Petunia x hybrida Antirrhinum majus Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Nicotiana tabacum Sea mays Zea mays Zea mays Nicotiana tabacum Zea mays Zea mays Oryza sativa subsp. indica		Brassica oleracea var. botryti
AB009087 S81466 AF302932 AF177980 AF177979 AF177981 S81470 AF085174	2082 X95296 Z13996 AF161711 Z13997 AJ006292 X98308 X99210 AB028652 AB028652 AB028650 M73028 AF210616 U72762	2083 D88530 D88529 AB040502 D49535 D85624 AB006530 AF212156 AJ223499 AJ223498 U69694	AF195511
BAA23725.1 AAC34192.1 AAG18450.1 AAG02287.1 AAG02286.1 AAG02288.1 AAG02288.1 AAG35554.2	SEQ ID NO. 2 CAA64614.1 CAA78386.1 AAF22256.1 CAA6952.1 CAA66952.1 CAA67600.1 BAA88224.1 BAA88224.1 BAA88221.1 AAA33500.1 AAA33500.1 AAB41101.1		AAF13064.1
Cucurbita sp. Petroselinum crispum Phalaenopsis sp. 'True Lady' Picea mariana Pisum sativum Pisum sativum Solanum tuberosum Solanum tuberosum	Picea abies Picea abies Picea mariana Picea mariana Picea mariana Picea mariana Rice mariana Nicotiana tabacum Nicotiana tabacum Clycine max Catharanthus roseus Catharanthus roseus Oryza sativa Oryza sativa	Sauromatum guttatum Sauromatum guttatum Triticum aestivum Mangifera indica Populus tremula x Populus Glycine max Oryza sativa Glycine max Zea mays Chlamydomonas reinhardtii Chlamydomonas reinhardtii	
2080 AF002016 AF202987 U66299 AF051203 AJ010945 AJ278987 AJ278988 AF127432	AF127434 AF127433 AF051733 AF051734 2081 AJ251511 S71335 X79768 AF083880 AB0053060 AB0053060 AB009395 AB007452 AB004813	Z15117 M60330 AF174004 X79329 AJ271889 AB004813 AB004865 U87907 AF040566 AF314255 AF285187	AF047832
SEQ ID NO. 2 AAC15870.1 AAE14635.1 AAB67883.1 AAC32108.1 CAB5555.1 CAC08233.1 CAC08233.1		CAA78823.1 AAA34048.1 AAD51707.1 CAA55892.1 CAB72441.1 tremuloides AAB97285.1 BAA28771.1 BAA28774.1 AAB97839.1 AAG02081.1	AAC05743.2

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o o	m m crystallinum	854 854 854 854 855 855 855 855 855 855	
Oryza sativa Glycine max Vitis vinifera Spinacia oleracea Glycine max Vigna unguiculata Brassica juncea Oryza sativa	Oryza sativa Brassica juncea Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Glycine max Betula pendula Mesembryanthemum crystallinum Zea mays Pisum sativum	Pisum sativum Glycine max Pisum sativum Zea mays Zea mays Zea mays Pisum sativum Picea mariana Chloroplast Mesostigma	Pinus bankslana Capsicum annuum Oryza sativa Dendrobium 'Sonia' Zea mays Zea mays Oryza sativa
AB026731 AF074940 AF019907 D37870 S70187 AF181096 AF109694	AB009592 AF349449 X76293 X76533 X76455 AF105199 AJ279690 AJ400816 AJ006055 X60373	X90996 L11632 X98274 2088 AF069909 AF069908 AF069910 U56697 AF051249 AF166114	AF124755 Y15782 AF024512 A0294543 AJ294542 Y18377 AF044603 AP002816
BAA77282.1 AAC26053.1 AAB70837.1 BAA07108.1 AAB30526.1 AAD53185.1 AAD28177.1 BAA36283.1	BAA37092.1 AAK27157.1 CAA53925.1 CAA53993.1 AAF26175.1 CAC13956.1 CAC13956.1 CAA06835.1	CAA62482.1 AAA33962.1 CAA66924.1 SEQ ID NO. AAC72193.1 AAC72192.1 AAC72192.1 AAC72192.1 AAC72194.1 AAB01223.1	
Brassica napus Zea mays Oryza sativa Allium cepa Chlamydomonas reinhardtii	Nicotiana plumbaginifolia Ricinus communis Ricinus communis Prunus armeniaca Beta vulgaris Hordeum vulgare Hordeum vulgare Zea mays Zea mays		brassica napus Zea mays Zea mays Nicotiana tabacum Zea mays Zea mays Zea mays Lea mays Lycopersicon esculentum Pisum sativum Oryza sativa
U68218 AF016305 AB015204 AF212154 U57088 2085 AF283816	Z11395 U74631 U74630 AF134733 AJ002057 L27348 L27349 AF190454 Z46772 X89813	AF052040 AF019376 X78057 AJ000765 AB018243 AF325720 X82578 AB026251	AF319//1 AF236368 AF236371 U69154 AF236369 AF236370 AF109695 D26392 L41345 U06461 D85764
AAB53100.1 AAB94542.1 BAA36274.1 AAF18998.1 AAB01234.1 SEQ ID NO. 2	AAB71420.1 AAB71419.1 AAB32207.1 CAA05161.1 AAA32948.1 AAA32949.1 AAF01470.1 CAA86728.1		AAK07610.1 AAF68384.1 AAC49690.1 AAF68385.1 AAF68386.1 AAF68386.1 SEQ ID NO. AAD28178.1 BAAO5408.1 AAC41654.1 AAA60979.1 BAA77214.1

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			. pekinensis	59	ystallinum			ntum
Zea mays Oryza sativa	Oryza sativa Oryza sativa	Cucumis sativus Cucurbita sp. Brassica napus Mangifera indica Raphanus sativus Zea mays	Brassica rapa subsp. Brassica rapa Pisum sativum Oryza sativa	Oryza sativa Spinacia oleracea	Mesembryanthemum crystallinum Betula pendula Nicotiana tabacum Pisum sativum	Brassica juncea Brassica juncea Pisum sativum Glycine max Vitis vinifera	Glycine max Nicotiana tabacum Zea mays Nicotiana tabacum Glycine max	Glycine max Vigna unguiculata Pisum sativum Cucumis sativus Lycopersicon esculentum
AF244679 AJ002381	2098 AB018444 AB018443	2099 X67696 D70895 X93015 X75329 X78116	2101 AF255651 AF008441 X98274 D85751	AB009592 D37870	AJ400816 AJ279690 X76293 X60373	AF349449 AF109694 X90996 AF105199 AF019907	L11632 X76533 AJ006055 X76455 S70187	AF074940 AF181096 U06461 D26392 L41345
AAG34822.1 CAA05355.1	SEQ ID NO. 3 BAA84780.1 BAA84779.1	SEQ ID NO. CAR47926.1 BRA11117.1 CAR63598.1 CAR53078.1 CAR55006.1 AAD44539.1	SEQ ID NO. AAF67753.1 AAC49980.2 CAA66924.1 BAA36283.1	BAA37092.1 BAA07108.1	CAC13956.1 CAB66332.1 CAA53925.1 CAA42921.1	AAK27157.1 AAD28177.1 CAA62482.1 AAF26175.1 AAB70837.1	AAA33962.1 CAA54043.1 CAA06835.1 CAA53993.1 AAB30526.1	AAC26053.1 AAD53185.1 AAA60979.1 BAA05408.1 AAC41654.1
Spinacia oleracea Mesembryanthemum crystallinum	Brassica napus Brassica napus	Hyoscyamus muticus Solanum commersonii Nicotiana tabacum Nicotiana plumbaginifolia Silene vulgaris	Fersea americana Zea mays Zea mays Glycine max Glycine max	Glycine man Alopecurus myosuroides Alopecurus myosuroides	Alopecurus myosuroides Alopecurus myosuroides Triticum aestivum	Petunia x hybrida Zea mays Zea mays Zea mays Zea mays	Betula pendula Oryza sativa Triticum aestivum Zea mays Zea mays	Zea mays Zea mays Zea mays Oryza sativa Zea mays
Z30332 Z30333	2094 U39289 U39319		AF133894 AJ010296 AJ010295 AF243376 AF243377	AF243379 AJ010451 AJ010454	AJ010452 AJ010453 AF184059	X36012 X07721 M16901 M16902 U12679	A7279691 A7279691 AF062403 X56004 AF244680	AF244677 AF244674 AJ002380 AF244673
CAA82993.1 CAA82994.1	SEQ ID NO. 2 AAC49181.1 AAC49182.1		AAF61392.1 CAB38119.1 CAB38118.1 AAG34811.1 AAG34812.1	AAG34814.1 CAA09190.1 CAA09193.1	CAA09191.1 CAA09191.1 CAA09192.1 AAD56395.1	CAA39487.1 CAA68993.1 AAA33470.1 AAA33469.1 AAA20585.1	CAB6633.1 CAB6633.1 AAC64007.1 CAA39480.1 AAG34823.1	AAG34820.1 AAG34817.1 AAG34821.1 CAAO5354.1 AAG34816.1
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Pyrus pyrifolia Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Oryza sativa Oryza sativa Lotus japonicus Oryza sativa	Petunia x hybrida Verbena x hybrida Perilla frutescens Perilla frutescens Citrus unshiu Nicotiana tabacum Brassica napus Sorghum bicolor Scutellaria baicalensis Forsythia x intermedia Gentiana triflora Nicotiana tabacum	Dorotheanthus bellidiformis Manihot esculenta Vitis vinifera Vitis vinifera Nicotiana tabacum Vitis vinifera Vitis vinifera Vitis vinifera
AF195217 2111 AB028132 AB028130 X97942 AJ242853 AJ009594 X97947 X97946 X97946 AB028131 AB028131 AB028133	2114 AB027455 AB013598 AB013596 AB013597 AB033758 AF190634 AF287143 AF199453 AF127218 D85186 AF346431	X18871 X77462 AB047092 AB047093 U32644 AB047098 AB047096 AB047095
AAF78516.1 SEQ ID NO. BAA78575.1 BAA78573.1 CAA66601.1 CAA89831.1 CAA66606.1 CAA66606.1 CAA66606.1 CAA66605.1 BAA78574.1 BAA78574.1 BAA78574.1	SEQ ID NO. BAA89009.1 BAA36423.1 BAA36422.1 BAA93039.1 AAF61647.1 AAF61647.1 AAF17077.1 BAA83484.1 AAD21086.1 BAAK28303.1	CAB56231.1 CAA54612.1 BAB41019.1 BAB41020.1 AAB36653.1 BAB41025.1 BAB41022.1 BAB41022.1
Brassica juncea Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Zea mays Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Eycopersicon esculentum Oryza sativa Pyrus pyrifolia	Spinacia oleracea Chlamydomonas reinhardtii Nicotiana tabacum Bruguiera gymnorhiza Solanum tuberosum Lycopersicon esculentum Pisum sativum Fritilaria agrestis Spinacia oleracea Triticum aestivum Brassica napus	Volvox carteri f. nagariensis Lycopersicon esculentum Medicago sativa Nicotiana tabacum Oryza sativa Oryza sativa Chlamydomonas reinhardtii
AF109695 D85764 2104 AF258809 AF258810 D88451 AF259793 U82558 L31936 L31936 Z75521 U86018 AF195209	X85038 X85038 AF170026 Z108 X64349 AB043960 X17578 Z11999 D13297 AF037457 X05548 X57408	AF110780 X52427 2109 X78284 AJ295006 AP001551 AF022736 X95313
	SEQ ID NO. CAA59409.1 AAD50464.1 SEQ ID NO. CAA35601.1 CAA35601.1 CAA36043.1 BAA02554.1 AAC04808.1 CAA40670.1 AAD38521.1	

Fagus sylvatica Oryza sativa Quercus suber	Mesembryanthemum crystallin Pisum sativum	Capsicum annuum	Spinacia oleracea	subsp. lentum	Zea mays	Zea mays	Triticum aestivum	Oryza sativa Zea mavs	Zea mays	s bals	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii 🛧	Citrus sinensis		Physcomitrella patens	Zea mays	Oryza sativa		Oryza sativa		• • • • • • • • • • • • • • • • • • • •	Nicotiana tabacum	orycine max	Oryza satıva						Brassica oleracea			Brassica oleracea
AJ298303 L76377 AJ000692	2120 AF003125 M31713	AF039662	M35660	XU2432	M73829	M73830	X75089	D30763 M73828	AB016810	AF233452	U29516	L10349	246944	AF010320	X12734	M73831	D30794	AB038037	D83660	· ·	2121	AF123503	X60033	AP002094		7777	AF093751	022105	L33904	L33905	U22174	L33906	L33907
CAC22329.1 AAB67852.1 CAB36911.1	SEQ ID NO. 3AB61593.1	AAD02175.1	AAA34028.1	CAA26281.1	AAA33459.1	AAA33460.1	CAA52980.1	BAA06436.1	BAA32348.1	AAK15005.1	AAC49171.1	AAA33085.1	CAA87068.1	AAB65699.1	CAA73265.1	AAA33461.1	BAA06456.1	BAA90760.1	BAA19865.1			AAD32141.1	CAA42636.1	BAA96221.1	6	SEQ ID NO.	AAC63372.1	AAB37228.1	AAA73945.1	AAA73946.1	AAA64310.1	AAA73947.1	AAA73948.1
Perilla frutescens Vitis vinifera Vitis vinifera	Nicotiana tabacum Nicotiana tabacum Vitis labrusca x Vitis vinifera	Feruita A nybrida Lycopersicon esculentum	Manihot esculenta	Manihot esculenta	Maninor escurenca		Nicotiana tabacum	Spinacia oleracea		Vitis riparia	Solanum commersonii	Solanum commersonii	Capsicum annuum	Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Solanum dulcamara	Nicotiana tabacum	Nicotiana tabacum	Solanum commersonii	Nicotiana tabacum	Solanum commersonii	Lycopersicon esculentum	Vitis vinifera	Nicotiana sylvestris	Nicotiana tabacum	Solanun commersonii	Vitis vinifera	Fragaria x ananassa		Nicotiana tabacum	Hordeum vulgare	Fagus sylvatica
AB002818 AB047099 AB047097	AE346432 U32643 AB047090	X85138	X77464	X77461	X / /463	2116	AF148648	AF147203	0110	AF178653	X72928	x67121	AJ297410	X66416	544889	S40046	AY007309	X65701	X65700	X72927	X95308	X72926	AE093743	AF003007	D76437	M64081	X67244	Y10992	AF199508	M29279	X61679	AJ001268	AJ298304
BAA19659.1 BAB41026.1 BAB41024.1	AAK28304.1 AAB36652.1 BAB41017.1	CAA59450.1	CAA54614.1	CAA54611.1	CAA54613.1	SEO ID NO. 2		AAD44808.1	OK OF ORD		CBB51432.1	Caa47601.1	CAC34055.1	CAA47047.1	AAB23375.1	AAB22459.2	AAG16625.1	CAA46623.1	CAA46622.1	CAA51431.1	CAA64620.1	CAA51430.1	AAC64171.1	AAB61590.1	BAA11180.1	AAA34087.1	CAA47669.1	CAA71883.1	AAF13707.1	AAA34089.1	CAA43854.1	CAA04642.1	CAC22330.1

Pimpinella brachycarpa	China activa	Oryza sativa				Oryza sativa	Oryza sativa	Craterostigma plantagineum	Physcomitrella patens	Daucus carota	Oryza sativa	Daucus carota	Daucus carota	Glycine max	Glycine max	Physcomitrella patens		Physcomitrella patens	Lycopersicon esculentum	la patens		Brassica rapa subsp. pekinensis		Physcomitrella patens		,	Persea americana	Thlaspi arvense	Sorghum bicolor	Asparagus officinalis	Glycine max	Nepeta racemosa	Asparagus officinalis	Solanum melongena	Capsicum annuum	Solanum melongena	Glycine max	Solanum melongena	Glycine max	Nepeta racemosa
X94449	ABU280/5	AE211193	10000	AC0/9890	AF145/31	AF145726	AF145727	AJ005820	AB028074	D26573	AF145729	D26576	D26578	AF184278	AF184277	AB028076	D26575	AB028078	X17306	AB028080	AF145728	AF268422	D26574	AB028077		2124	M32885	L24438	AF029858	AB037244	AF022460	Y09423	AB037245	D14990	AF122821	X71654	AF022157	X70981	AF022459	X09424
CAA64221.1	BAA93463.1	AAETSS80.I	CAM03430.2	AAK312/0.1	AAD37700.1	AAD37695.1	AAD37696.1	CAA06717.1	BAA93462.1	BAA05622.1	AAD37698.1	BAA05625.1	BAA21017.1	AAF01765.1	AAF01764.2	BAA93464.1	BAA05624.1	BAA93466.1	CAB67118.1	BAA93468.1	AAD37697.1	AAF73482.1	BAA05623.1	BAA93465.1			AAA32913.1	AAA19701.1	AAC39318.1	BAB40323.1	AAB94589.1	CAA70575.1	BAB40324.1	BAA03635.1	AAF27282.1	CAA50645.1	AAB94584.1	CAA50312.1	AAB94588.1	CAA70576.1
Brassica oleracea	Gossypium hirsutum	Gossypium hirsutum	Gossypium nirsutum	Gossypium hirsutum	Brassica napus	Gossypium hirsutum	Gossvoium hirsutum	Corvlus avellana	Nicotiana glauca	Spinacia oleracea	Phaseolus vulgaris	Prunus avium	Gossypium hirsutum	Malus x domestica	Sorghum bicolor	Cicer arietinum	Prunus dulcis	Pyrus communis	Prunus dulcis	Lilium longiflorum	Sorghum bicolor	Nicotiana tabacum	Brassica rapa	Zea mays	Malus x domestica	Hordeum vulgare	Triticum aestivum	Gerbera hybrida	Aerides japonica	Oryza sativa	Oryza sativa	Zea mays	Hordeum vulgare	Sorghum bicolor			Craterostigma plantagineum	Pimpinella brachycarpa	Glycine max	Pimpinella brachycarpa
L29767	AF228333	AF195865	AF195863	AE044204	AF101038	015153	578173	AF329829	AF151214	MARGAR	1172765	AF221501	AF195864	AF221502	X71667	AJ002958	X96714	AF221503	X96716	AF171094	X71668	X62395	L31938	J04176	AJ277164	237115	AF302788	Z31588	AF198168	U31766	AE017359	ະດ	237114	x71669		2123	AJ005833	X95193	X92489	X94375
AAA32995.1	•	•	AAF35184.1	AAC00499.1	AAD09107.1	AAA75599.1	1 7 L L L L L L L L L L L L L L L L L L	T EESBOARK	AAF28333.1	1 05005444	1.3505044	ABE26449.1	AAF35185.1	AAF26450.1	CAA50660.1	CAA05771.1	CAA65475.1	AAF26451.1	CAA65477.1	AAD46683.1	CAA50661.1	CAA44267.1	AAA91050.1	AAA33493.1	CAB96874.1	CAA85484.1	AAG27707.1	CAA83459.1	AAF71695.1	AAA74624.1	AAB70539.1	AAB06443.1	CBB5483.1	CAA50662.1		SEO ID NO. 2		CAA64491.1	CAA63222.1	CAA64152.1

Nicotiana tabacum		Chlamydomonas eugametos			Oryza sativa	Zea mays	Oryza sativa	Oryza sativa	Glycine max	Solanım tuberosum		2422 38224		;	Chloroplast Pisum sativum	Oryza sativa	Nicotiana tabacum	Pinus sylvestris	Chloroplast Chlamydomonas	46	Zea mays	Zea mays	Pisum sativum	Nicotiana tabacum	Chlamydomonas sp. W80	Oryza sativa	Oryza sativa	Marsilea quadrifolia	Cucurbita pepo		Chloroplast Pinus sylvestris	Ginkgo biloba		Chloroplast Pinus sylvestris	Nicotiana tabacum	Zea mays	Zea mays	Zea mays	Selaginella lepidophylla		Taxus baccata	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
D26602	AF128443	Z49233	ABUILY68	AP001168	AF062479	L15390	AF048691	AP000615	AF203479	Y05007	70000	ACU/3100	£ (2127	M55147	AP000615	M14418	L26923	L27668		M18976	X15408	X52148	M14417	AB035312	AF022730	AF010582	AJ003783	AF260734	L07501	L32560	L26924	AJ001706	L32561	AJ133422	045858	045855	X73151	1196623	X60343	1.26922	1 2 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BAA05649.1	AAD23582.1	CAA89202.1	BAA83689.1	BAA90814.1	AAC99329.1	AAA33443.1	AAC05270.1	BAA85396.1	AAF19401.1	- VVCBAKKO	CAM03244.1	AAG46110.1			AAA84543.1	BAA85402.1	AAA34076.1	AAA33780.1	AAA86855.1	reinhardtii	AAA33464.1	CAA33455.1	CAA36396.1	AAA34075.1	BAA94304.1	AAB82133.1	AAB66887.1	CAA06030.1	AAG23800.1	AAA33779.1	AAD10215.1	AAA33352.1	CAA04942.1	AAD10214.1	CAB39974.1	AAA87880.1	AAA87578.1	CAA51676.1	1 01087444	CAA42901.1	1 2028444	***
Nicotiana tabacum		Triticum aestivum	Mentha x piperita	Mentha spicata	Pisum sativum	Nicotiana tabacum		Nicotiana tabacum		GIYCING MAX	Glycine max	Glycine max	Zea mays	Zea mays	Petunia x hybrida	u	** 1 6/16# GO/			Brassics napils	π	Brassica napus	+	J. Concession each entim	Nicoperations tabacim			Glycine max	Zea mavs	Orvza sativa	Fagus sylvatica	Orvza sativa	Nicotiana tabacum		Malina & domestica	Dunalialla tertiolecta	Sorabim bicolor	Ni Coti ana tabacita	. 7	Sorgium Dicolor	מ מ	Hordeum Vulgare
0F166332	AJ238612	AB036772	233875	AF124815	AF218296	X95342	AF124816		A90/04	DRZAPR	D86351	AF135485	X11368	X81831	AF155332	DE124817			2125	רפטטוסדיה	A001007	101001 0.1010093	AUCTOUS	AE 1/2202	AJ000/20	AU302031	AFIGGIO	M67449	1183625	DF194413	A.T298992	AF194414	n31964	217313	30106	A50120	V12464	5057TI	AF 323108	YIZ465	9500TX	X82548
1 05027444	•		•		AAG44132.1	ר הפאאמיים	1.00000000	1.10137440	CAA6558U.1	BAA12159.1	BAA13076.1	AAD38930.1	CAA72196.1	CAA57425.1	1 68698044	1 2222244	י ככיונייניי	CAM3/423.1	C ON OT Odo		CAMOSSS.	BAAOOO40.1	CAAUSSY	AAE34436.1	CAA04261.2	CACZ4/05.1	AAE'O / 202 . 1	AAG403/8.1	AAA34002.1	1.06653444	78500040	2.000000000000000000000000000000000000	ר ובראטגים	ו ואפפרהני	ר שפטפיים	CAA80200.1	AAD00/21.1	CAB/300/.1	AAG539/9.1	CAA73068.1	CAA71142.1	CAA57898.1

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| Lycopersicon esculentum | solanum tubelosum | Solanum tuberosum | Nicotiana tabacum | Nicotiana tabacum | Solanum tuberosum | Nicotiana tabacum | Musa acuminata | Musa acuminata | Solanum tuberosum | Glycine max | Glycine max | Vitis vinifera | Nicotiana tabacum | Citrus sinensis | Glycine max | Prunus persica
 | Glycine max | Nicotiana tabacum | Capsicum annuum | Nicotiana tabacum | Capsicum annuum | Populus x canescens | Nicotiana tabacum

 | Nicotiana talicum | Nicotiana tabacum | | | Oryza sativa
 | Daucus carota | | | Physcomitrella patens | Zinnia elegans | Physcomitrella patens | Physcomitrella patens | Physcomitrella patens | Daucus carota
 | Daucus carota | Physcomitrella patens | Physcomitrella patens |
| M80608 | AEU6/863 | U01901 | M60402 | M60403 | 001900 | M59442 | AF001523 | AF004838 | 001902 | AF034106 | AF034113 | AJ277900 | M20620 | AJ000081 | 041323 | U49454
 | M37753 | M59443 | AF227953 | AF141654 | AF294849 | AF230109 | AE141653

 | X81560 | M60464 | | 2131 | AE145729
 | D26575 | AF184278 | X94947 | AB028077 | AB042769 | AB028072 | AB028078 | AB028073 | D26576
 | D26573 | AB028079 | AB028076 |
| AAA03618.1 | AACISI14.1 | AAA18928.1 | AAA63539.1 | AAA63540.1 | AAA88794.1 | AAA63541.1 | AAB82772.2 | AAF08679.1 | AAA19111.1 | AAC04710.1 | AAC04714.1 | CAB91554.1 | AAA34082.1 | CAA03908.1 | AAB03501.1 | AAA92013.1
 | AAA33946.1 | AAA63542.1 | AAF34761.1 | AAD33881.1 | AAG34080.1 | AAF33405.1 | AAD33880.1

 | CAA57255.1 | AAA34053.1 | | SEQ ID NO. | AAD37698.1
 | BAA05624.1 | AAF01765.1 | CAA64417.1 | BAA93465.1 | BAB18171.1 | BAA93460.1 | BAA93466.1 | BAA93461.1 | BAA05625.1
 | BAA05622.1 | BAA93467.1 | BAA93464.1 |
| Zea mays | Atriplex nummularia | Atriplex nummularia | Mesembryanthemum crystallinum | Mesembryanthemum crystallinum | Craterostigma plantagineum | Zea mavs | Antirrhinum majus | Orvza sativa | Cucurbita pepo | Petunia x hybrida | Physcomitrella patens | Magnolia liliiflora | | | Nicotiana tabacum | Chlamydomonas reinhardtii
 | Chlamydomonas reinhardtii | Volvox carteri f. nagariensis | | | subsp. | turdidum subsp. | subsp.

 | 4 | Medicado sativa | Datisca glomerata | Oryza sativa | Lithospermum erythrorhizon
 | • | | Hevea brasiliensis | Hevea brasiliensis | Hevea brasiliensis | Vitis vinifera | ø | | Phaseolus vulgaris
 | Nicotiana plumbaginifolia | Nicotiana plumbaginifolia | Nicotiana plumbaginifolia |
| U45856 | 002886 | X75597 | J05223 | M29956 | X78307 | 045857 | X59517 | U31676 | AF260733 | X60346 | X72381 | X60347 | | 2128 | X11209 | AF036939
 | AE027727 | AF110784 | A.7277379 | 111496 | A.1277380 | A 1277378 | 7757777A

 | 1141385 | 211499 | AF131223 | AB039278 | AB026252
 | | 2130 | 022147 | AJ133470 | AF311749 | AF239617 | U27179 | S51479 | X53129
 | M63634 | M23120 | X07280 |
| AAA87579.1 | AAA03442.1 | CAA53269.1 | AAA33033.1 | AAA33031.1 | CAA55116.1 | AAA87580.1 | CAA42103.1 | 1 202211210 | AAG23799.1 | CAA42904.1 | CAA51071.1 | CAA42905.1 | | | | AAD02069.1
 | AAC49896.1 | AAD55566.1 | 1 05010040 | 1 0991000 | CBC21231 1 | 1.10010747 | CACC12747

 | DDB05641 1 | CAA77575.1 | AAD28260.1 | BAA92322.1 | BAA77026.1
 | | | | CAB38443.1 | AAG24921.1 | AAF44667.1 | AAB41551.1 | AAB24398.1 | CAA37289.1
 | AAA34078.1 | AAA51643.1 | CAA30261.1 |
| | U45856 Zea mays AAA03618.1 M80608 | U45856 Zea mays
U02886 Atriplex nummularia AAC19114.1 AF067863 | U45856 Zea mays AAA03618.1 M80608 U02886 Atriplex nummularia AAC19114.1 AF067863 X75597 Atriplex nummularia AAA18928.1 U01901 | U45856 Zea mays AAA03618.1 M80608 U02886 Atriplex nummularia AAC19114.1 AF067863 X75597 Atriplex nummularia AAA18928.1 U01901 J05223 Mesembryanthemum crystallinum AAA63539.1 M60402 | U45856 Zea mays AAA03618.1 M80608 U02886 Atriplex nummularia AAC19114.1 AF067863 X75597 Atriplex nummularia AAA18928.1 U01901 J05223 Mesembryanthemum crystallinum AAA63539.1 M60402 M29956 Mesembryanthemum crystallinum AAA63540.1 M60403 | U45856 Zea mays AAA03618.1 M80608 U02886 Atriplex nummularia AAC19114.1 AF067863 X75597 Atriplex nummularia AAA18928.1 U01901 J05223 Mesembryanthemum crystallinum AAA63539.1 M60402 M29956 Mesembryanthemum crystallinum AAA63540.1 M60403 X78307 Craterostigma plantagineum AAA88794.1 U01900 | U45856 Zea mays AAA03618.1 M80608 U02886 Atriplex nummularia AAC19114.1 AF067863 X75597 Atriplex nummularia 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M01903 Nicotiana tabacum X60347 Magnolia liliflora AAA19102.1 AR04106 Solanum tuberosum X72381 Magnolia liliflora AAA19102.1 AR04106 Solanum tuberosum</td> <td> Mail</td> <td> Mail</td> <td>U45856 Zea mays AAA03518.1 H806060 Lycopersion esculantum AAA1914.1 V02886 Atriplex nummularia AAA19114.1 AF067863 Solanum tuberosum AAA1914.1 X75597 Atriplex nummularia AAA19114.1 Mosembryanthemum crystallinum AAA65340.1 Mosembryanthemum crystallinum AAA66772.2 AAA1911.1 Mosembryanthemum crystallinum AAA1908.1 AAA1911.1 Mosembryanthemum crystallinum AAA19108.1 AAA1911.1 Mosembryanthemum turgidum subsp. durum AAA19165.1 AAA1911.2 AAA1911.2 AA</td> <td>U45856 Zea mays AAA03518,1 M60608 Lycopersion become seculentum and striplex nummularia 70523 Atriplex nummularia AAC18911.1 AAC18928.1 U01901 Solanum tubercosum tubercosum and striplex nummularia 70523 Mesembryanthemum crystallinum AA63340.1 M60402 Nicotiana tabacum nummularia 778307 Craterostigma plantagineum AA863340.1 M60402 Nicotiana tabacum 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AAA6554.1 M60403 Nicotiana tabacum X5951 Antirhinum majus AAA0554.1 M60403 Nicotiana tabacum X60346 Antirhinum majus AAA0554.1 AAA0191.1 AAA0191.1 X60347 Aphycomitrella patens AAA0711.1 AAA0191.1 AAA0191.1 X60347 Aphycomitrella patens AAA0191.1 AAA0191.1 AAA0191.1 X60346 Aphycomitrella patens AAA00101.</td> <td>U198566 Actiples a mays Actionation Actionation</td> <td>U98586 Attplex nummularia AAAA01141.1 ARA067861 Jübböd08 Lycopersion seculentum na vanisation seculentum na vanisativa na vanisati na vanisa</td> <td>U48856 Zea mays AAAAC19114.1 APAC196808 Lycopersion seculentum pathods X7559 Atriplex nummularia AAAC19114.1 ARAC19114.1 APAC196808 Solanum tubercosum pathods X7559 Atriplex nummularia AAAC1911.1 ARAC1911.1 ARAC191.1 <t< td=""><td> MAKAGS91 ARCORNES ARCORNES</td></t<></td> | U45856 Zea mays AAA03618.1 M60608 Lycopersicon esculentum U02886 Atriplex nummularia AAA18928.1 M60608 Lycopersicon esculentum U02886 Atriplex nummularia AAA18928.1 M60402 Nicotiana tabacum J0323 Mesembryanthemum crystallinum AAA63539.1 M60403 Nicotiana tabacum M8956 Mesembryanthemum crystallinum AAA63540.1 M60403 Nicotiana tabacum M9956 Aretriplex nummularia AAA63541.1 M60403 Nicotiana tabacum M9957 Zea mays AAA63541.1 M60403 Nicotiana tabacum M9587 Zea mays AAR6341.1 M9542 Nicotiana tabacum M50346 AAC10410.1 AR6043 Musa acuminata AR634 AAC10410.1 AR6043 Musa acuminata AR634 AAC10410.1 AR60413 Musa acuminata AR634 AAC10410.1 AR60413 Musa acuminata AR634 AAC10410.1 AR604113 Musa acuminata AR634 AAC10410.1 AR60411 | U45856 2ca mays AAA03618.1 M80608 Lycopersicon esculentum U0286 Atriplex nummularia AAA18028.1 M60608 Lycopersicon esculentum U0286 Atriplex nummularia AAA18028.1 M60403 Nicotiana tabacum J0522 Mesembryanthemum crystallinum AAA63539.1 M60403 Nicotiana tabacum M2857 Zea mays Nicotiana tabacum AAA63540.1 M60403 Nicotiana tabacum M48857 Zea mays AAA1911.1 M5942 Nicotiana tabacum M48857 Antirrhinum majus AAA1911.1 M504033 Nicotiana tabacum M5503 Cucurbita pepo AAC04710.1 AF004838 Musa acuminata AK034 Physcomitrella patens AAC04710.1 AF04108 Solanum tuberosum X6034 Physcomitrella patens AAC04710.1 AF03410 Glycine max X6034 Physcomitrella patens AAC04710.1 AF03410 AC040083 X6034 Magnolia liliflora AAC04710.1 AF03410 AC040083 X1209 Nicoti | U45856 Zea mays PAA03568.1 M80668 Lycoperation esculentum U02886 Attriblex nummularia AAA1892e.1 M60708 Solanum tuberosum U02836 Attriblex nummularia AAA1892e.1 W60402 Solanum tuberosum J05223 Mesembryanthemum crystallinum AAA6354.1 M60402 Nicotiana tabacum X7837 Craterostigma plantagineum AAA6354.1 M60403 Nicotiana tabacum X7837 Craterostigma plantagineum AAA6354.1 M60403 Nicotiana tabacum X7837 Crutbita pelo AAA6354.1 M60403 Nicotiana tabacum X59517 Antirchinum majus AAA6354.1 M60403 Nicotiana tabacum X60346 Orguzbita pelo AAA63411.1 O1990 Solanum tuberosum X60346 Petunia x hybrida AAC4710.1 AF03406 Glycine max X72381 Physcomitrella patens AAC4714.1 AF03410 AC43710 X60347 Magnolia liliiflora AAC4714.1 AF0340 AC40300 X11209 Nicotiana tabacum | Magnolia Magnolia | Magnetian Magn | U02866 Attriplex nummularia AAA189281 M86068 Lycopersicon esculentum A75597 Attriplex nummularia AAA189281 U01901 Solanum tuberosum AAA18928 U01901 AAA18928 U01900 AAA18928 U01900 AAA18928 U01900 AAA18928 U01900 AAA1892 U01900 AAA1892 U01900 AAA1892 U01900 AAA1892 U01900 AAA1892 U01900 AAA1892 U01900 AAA1992 U01902 U | U45856 Acam asys AAA03618.1 AF007863 Lycoperation scollentum U02886 Atriplex nummilaria AAA03213.1 AF007863 Solanum tuberosum U02823 Atriplex nummilaria AAA0329.1 U01901 Nicotiana tuberosum U05223 Mesembryanthemum crystallinum AAA6329.1 M60402 Nicotiana tuberosum W29956 Mesembryanthemum crystallinum AAA6329.1 M60403 Nicotiana tuberosum W29956 Mesembryanthemum crystallinum AAA6394.1 U01900 Solanum tuberosum W29956 Mesembryanthemum crystallinum AAA6394.1 U01900 Solanum tuberosum W29956 Mesembryanthemum crystallinum AAA6394.1 U01900 Solanum tuberosum U31676 Oryza sativa AAA01911.1 M01902 Solanum tuberosum AF260733 Physicomirella patens AAA1911.1 A01903 Solanum tuberosum X72381 Physicomirella patens AAA1911.1 AP01408 Nicotiana tabacum X72381 Magnolia liliflora AAA01916.1 ANA00081 Liticom max | U48866 Attribles nummularia AAAA082618.1 H806608 Lycopersiton scoulentum U02886 Attriblex nummularia AAA1828.1 001901 Solanum tuberosum X75597 Attriblex nummularia AAA1828.1 001901 Nicotiana tabacum X75597 Mesembryanthemum crystallinum AAA63239.1 M60402 Nicotiana tabacum X78307 Craterostigma plantagineum AAA6324.1 M60402 Nicotiana tabacum X78307 Craterostigma plantagineum AAA6324.1 M60402 Nicotiana tabacum X78307 Craterostigma plantagineum AAA634.1 M60403 Nicotiana tabacum X8307 Cucubita pepo AAA1911.1 M01900 Solanum tuberosum X80346 Petunia x hybrida AAA1911.1 M01902 Solanum tuberosum X60347 Magnolia liliflora AAA1911.1 M01903 Nicotiana tabacum X60347 Magnolia liliflora AAA19102.1 AR04106 Solanum tuberosum X72381 Magnolia liliflora AAA19102.1 AR04106 Solanum tuberosum | Mail | Mail | U45856 Zea mays AAA03518.1 H806060 Lycopersion esculantum AAA1914.1 V02886 Atriplex nummularia AAA19114.1 AF067863 Solanum tuberosum AAA1914.1 X75597 Atriplex nummularia AAA19114.1 Mosembryanthemum crystallinum AAA65340.1 Mosembryanthemum crystallinum AAA66772.2 AAA1911.1 Mosembryanthemum crystallinum AAA1908.1 AAA1911.1 Mosembryanthemum crystallinum AAA19108.1 AAA1911.1 Mosembryanthemum turgidum subsp. durum AAA19165.1 AAA1911.2 AAA1911.2 AA | U45856 Zea mays AAA03518,1 M60608 Lycopersion become seculentum and striplex nummularia 70523 Atriplex nummularia AAC18911.1 AAC18928.1 U01901 Solanum tubercosum tubercosum and striplex nummularia 70523 Mesembryanthemum crystallinum AA63340.1 M60402 Nicotiana tabacum nummularia 778307 Craterostigma plantagineum AA863340.1 M60402 Nicotiana tabacum nummularia 778307 Craterostigma plantagineum AA863340.1 M60402 Nicotiana tabacum numinaria 778307 Creubita pepo AAA18921.1 M50402 Nicotiana tabacum numinaria 785017 Creubita pepo AAA1911.1 M60403 Micotiana tabacum numinaria 780340 Creubita pepo AAA1911.1 AR03413 Glycine max numinaria 780340 Macotiana tabacum numinaria AAA1911.1 AR03413 Glycine max numinaria 780340 Macotiana tabacum numinaria AAA1911.1 AR03410 Micotiana tabacum numinaria 780340 Micotiana tabacum numinaria AAA1911.1 AR03410 Micotiana tabacum numinaria 71100 Micotiana tabacum n | U05856 Zae mays AAA0591.1 MR06068 Lycopersion seculentum X5597 Attiplex nummularia AAA0592.1 01090 Solanum tubercosum X5597 Attiplex nummularia AAA05340.1 M60402 Nicotiana tabacum X5597 Attiplex nummularia AAA6540.1 M60402 Nicotiana tabacum X5957 Antirhinum majus AAA6540.1 M60402 Nicotiana tabacum X5951 Antirhinum majus AAA6554.1 M60403 Nicotiana tabacum X5951 Antirhinum majus AAA6554.1 M60403 Nicotiana tabacum X5951 Antirhinum majus AAA6554.1 M60403 Nicotiana tabacum X5951 Antirhinum majus AAA0554.1 M60403 Nicotiana tabacum X60346 Antirhinum majus AAA0554.1 AAA0191.1 AAA0191.1 X60347 Aphycomitrella patens AAA0711.1 AAA0191.1 AAA0191.1 X60347 Aphycomitrella patens AAA0191.1 AAA0191.1 AAA0191.1 X60346 Aphycomitrella patens AAA00101. | U198566 Actiples a mays Actionation Actionation | U98586 Attplex nummularia AAAA01141.1 ARA067861 Jübböd08 Lycopersion seculentum na vanisation seculentum na vanisativa na vanisati na vanisa | U48856 Zea mays AAAAC19114.1 APAC196808 Lycopersion seculentum pathods X7559 Atriplex nummularia AAAC19114.1 ARAC19114.1 APAC196808 Solanum tubercosum pathods X7559 Atriplex nummularia AAAC1911.1 ARAC1911.1 ARAC191.1 ARAC191.1 <t< td=""><td> MAKAGS91 ARCORNES ARCORNES</td></t<> | MAKAGS91 ARCORNES ARCORNES |

Samanea saman Populus tremula x Populus	Zea mays Zea mays Oryza sativa	Petunia x hybrida Lycopersicon esculentum Cucurbita maxima Coptis japonica	0 0 0	Solanum melongena Solanum melongena Glycine max Glycine max Antirrhinum majus Papaver somniferum Nepeta racemosa Petunia x hybrida Lycopersicon esculentum x Petunia x hybrida Asparagus officinalis Nepeta racemosa Glycine max Asparagus officinalis	
AJ299019 AJ271446	2134 X79086 X79085 AF242298	2135 AF210049 X63093 2136 AF212990 AB025030	U/254 X71656 AF155332 AF022458 AF014801 AF014800 M32885		Af 100332 2138
CAC10514.1 CAC05488.1 tremuloides	SEQ ID NO. 2 CAA55693.1 CAA55691.1 AAF97508.1		AAB17562.1 CAA50647.1 AAD56282.1 AAB94587.1 AAC39453.1 AAC39452.1	CAA50155.1 CAA50648.1 AAB94593.1 AAB94588.1 BAA84071.1 AAF05621.1 CAA70575.1 AAD37433.1 Lycopersicon BAA92894.1 BAB40324.1 CAA70576.1 AAB94589.1	AAD4/832.1 SEQ ID NO.
Oryza sativa Glycine max Daucus carota	Zinnia elegans Physcomitrella patens Daucus carota Oryza sativa Prunus armeniaca			Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Daucus carota Lycopersicon esculentum Oryza sativa Zea mays Oryza sativa Samanea saman Solanum tuberosum Zea mays Vicia faba Populus tremula x Populus Samanea saman Mesembryanthemum crystallinum	Nicotiana paniculata Triticum aestivum Egeria densa
AF145728 AF184277 D26578	AB042766 AB028080 D26574 AF145730 AF139497	AF339748 AB028075 X95193 X94449 X944375 AF145731 AF145726 AJ005833	X91212 X92489 X96681 AF211193	AF079871 AF079872 U65390 AJ249962 X96390 AD132686 AP002093 AF145272 X79779 X79779 X79779 X79779 X79779 X79779 AF099095 AF099095	AB032074 AF207745 AJ225805
AAD37697.1 AAF01764.2 BAA21017.1	BAB18168.1 BAA93468.1 BAA05623.1 AAD37699.1 AAD38144.1	AAA63768.2 BAA64491.1 CAA64491.1 CAA64221.1 CAA64152.1 AAD37700.1 AAD37695.1		AAF33669.1 AAF33670.1 AAB53255.1 CAA65254.1 BAA96150.1 CAA56192.1 AAD39492.1 CAA56175.1 CAA56175.1 CAA517598.1 CAA71598.1 CAA71598.1 CAA71598.1	BAA84085.1 AAF36832.1 CAA12645.1

Cucurbita argyrosperma Cucurbita maxima Cucurbita maxima Cucurbita maxima Cucurbita maxima Cucurbita axima Cucurbita moschata Cucurbita argyrosperma Cucurbita maxima	Vicia faba Nicotiana tabacum Mesembryanthemum crystalli; Triticum aestivum Glycine max Oryza sativa Oryza sativa Nicotiana tabacum Triticum aestivum Oryza sativa Craterostigma plantagineum Craterostigma plantagineum Craterostigma plantagineum Craterostigma plantagineum Oryza sativa Cucumis sativus Sorghum bicolor Glycine max Cucumis sativus Sorghum bicolor Nicotiana tabacum Oryza sativa Solanum tuberosum Hordeum vulgare Oryza sativa	Hordeum vulgare Oryza sativa Hordeum vulgare Oryza sativa Oryza sativa Oryza sativa Triticum aestivum Zea mays
L32701 L31550 L31552 L31551 Z17331 AF150627 L32700	AF186020 173938 226846 U29095 L38855 AC084763 AB002109 U73939 M94726 D88399 AJ005373 AF128443 Y12464 AF128443 Y12465 D26602 AP002482 X95997 X82548 AF062479 AJ007990	X65606 U55768 X65604 AB011968 AF004947 AB011967 AB011670
AAA33118.1 AAA833117.1 AAA83116.1 AAA33116.1 CAA78979.1 AAF74345.1 AAA92465.1 CAA80364.1		CAA46556.1 AAB05457.1 CAA46554.1 BAA83689.1 AAB62693.1 BAA83688.1 BAA34675.1 AAF22219.1
Oryza sativa Petunia x hybrida Gossypium hirsutum Antirrhinum majus Gossypium hirsutum Cossypium hirsutum Lycopersicon esculentum Oryza sativa Hordeum vulgare	Hordeum vulgare Hordeum vulgare Hordeum vulgare Pimpinella brachycarpa Oryza sativa Glycine max Glycine max Glycine max Nicotiana tabacum Oryza sativa Nicotiana tabacum Oryza sativa Nicotiana tabacum Petunia x hybrida Oryza sativa Nicotiana tabacum Hordeum tabacum Lycopersicon esculentum Nicotiana tabacum Lycopersicon esculentum Nicotiana tabacum Clycopersicon esculentum Nicotiana tabacum Clycopersicon esculentum Clycopersicon esculentum Oryza sativa	Oryza sativa Oryza sativa Gossypium hirsutum Oryza sativa Oryza sativa Lycopersicon esculentum
Y11415 Z13996 AF336283 AJ006292 AF336286 AF336278 X95296 D88617	X70877 X70876 AF161711 Y11351 X99210 AB029161 AB029160 AB029160 AB029160 X11414 AB028650 Z13997 Y11414 AB028651 X70881 X70881 X70878 AB029162 AB029165	Y11352 X96749 AF336285 Y11350 AC037425 X95297 2139 AP002521
CAA72218.1 CAA78386.1 AAK19616.1 CAB43399.1 AAK19619.1 AAK19611.1 CAA64614.1 BAA23337.1	CAA50222.1 CAA50221.1 AAF22256.1 CAA72186.1 CAA67600.1 BAA81732.1 BAA81730.1 BAA88221.1 CAA72217.1 CAA72217.1 CAA72217.1 CAA50223.1 CAA50226.1 CAA50226.1 CAA50226.1 CAA50226.1	

Triticum aestivum	Oryza sativa Capsicum annıum Bidens pilosa Hordeum vulgare Oryza sativa Capsicum annuum	Oryza sativa Oryza sativa Oryza sativa Bryonia dioica Brassica napus Brassica juncea Zea mays	Hordeum vulgare Tortula ruralis	Hordeum vulgare Phragmites australis Phragmites australis Phragmites australis Phramites australis		Malus x domestica Hordeum vulgare Solanum tuberosum
049103 048693 048692 048691 048689 048242 S81594	212827 U83402 X89890 M27303 AP000969	AF042840 L18914 Z12828 L14071 U10150 M88307	2152 X60158 AF157017 2153	AE129479 AB055630 AB055629 AB055631	AF129485 AF129484 AF129480 AJ300161	2154 AF053769 AF022390 U65648
AAC49585.1 AAC49584.1 AAC49583.1 AAC49582.1 AAC49580.1 AAC49579.1 AAC49578.1	CAA78287.1 AAB46588.1 CAA61980.1 AAA32938.1 BAA88540.1	AAC36059.1 AAA33900.1 CAA78288.1 AAA16320.1 AAA19571.1 AAA87347.1	SEQ ID NO. CAA42727.1 AAD46189.1 SEO ID NO.		BAB32443.1 AAE36497.1 AAE36496.1 AAE36492.1 CAC15061.1	SEQ ID NO. AAF43095.1 AAB81079.1 AAB41849.1
Pisum sativum Zea mays Zea mays Oryza sativa Oryza sativa Pisum sativum	Glycine max Zea mays Pisum sativum Helianthus tuberosus	Brassica napus Medicago truncatula Vigna radiata Medicago sativa	Phaseolus vulgaris Phaseolus vulgaris Zea mays Oryza sativa Oryza sativa	Fraseolus vulgaris Zea mays Oryza sativa Pisum sativum Petunia x hybrida	Petunia x hybrida Malus x domestica Lilium longiflorum Daucus carota Capsicum annuum	Elaeis guineensis Prunus avium Vigna radiata Triticum aestivum Triticum aestivum
2142 AB048713 AF263457 AF067400 AP001168 AF067401 AB048714	2146 U20502 X77569 Y17329 235108	2147 233643 AF134835 2149 L20507 X52398	AF030033 AF030032 Y13974 X65016 AF042839	AF030034 X77397 AP000815 U13882 M80836	M80831 X60738 Z12839 X59751 X98404	AF295637 AF292108 L20691 U49105 U49104

Triticum aestivum Triticum aestivum Castanea sativa Castanea sativa Petunia x hybrida Zea mays Petunia x hybrida Phaseolus vulgaris Medicago sativa Malus x domestica Lilium longiflorum Helianthus annuus Daucus carota Vigna radiata Elaeis guineensis Prunus avium Mougeotia scalaris Pisum sativum		Mesembryanthemum crystallinum Nicotiana tabacum Medicago sativa Lotus japonicus Mesembryanthemum crystallinum Fagus sylvatica Lotus japonicus	Mesembryanthemum crystallinum Oryza sativa Fagus sylvatica Zea mays	Mesembryanthemum crystallinum Mesembryanthemum crystallinum Fagus sylvatica Oryza sativa
U48692 U48691 AF334833 M80836 Y13974 M80831 AF030032 X52398 X60738 Z12839 U79736 X59751 L20507 AF295637 AF295108 Y13784 U13882	2158 AF213455 AF075580 AJ277743	AE0755/9 AJ277086 Y11607 AE092431 AF075582 AJ298987 AF092432	AF075581 AF075603 AJ277744 U81960	AE07050 AE079355 AJ298988 2159 AB052885 AJ001061
AAC49583.1 AAC49582.1 AAK25753.1 AAA33706.1 CAA73705.1 AAA33705.1 AAA34705.1 AAA34705.1 CAA43143.1 CAA43143.1 CAA42423.1 AAG27432.1 AAG27432.1 AAG27432.1 AAG274311.1		AAC3697.1 CAC10358.1 CAA72341.1 AAD17804.1 AAC36700.1 CAC09575.1 AAD17805.1	AAC26899.1 AAC26828.1 CAB90634.1 AAB93832.1	
Oryza sativa Ceratopteris richardii Zea mays Ceratopteris richardii Ceratopteris richardii Ceratopteris richardii Pisum sativum Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Medicago truncatula Lycopersicon esculentum Lycopersicon esculentum Brassica oleracea Olea europaea Lotus japonicus	Pisum sativum Chlamydomonas reinhardtii Chara corallina Chara corallina Chara corallina	nroctaina tabacum Dunaliella salina Capsicum annuum Oryza sativa Physcomitrella patens Capsicum annuum Solanum tuberosum	Solanum tuberosum Solanum tuberosum Solanum tuberosum Capsicum annum	Oryza sativa Oryza sativa Zea mays Brassica juncea Brassica napus Phaseolus vulgaris
AF050181 AB043955 AF100455 AB043954 AB043956 AF080104 AF050180 U76409 U76409 AF308454 AF000141 U76407 AF193813 2157 AF193813 AF078679 AF078680 AJ251808	U13736 M20729 AB041712 AB041711 AB044286	· -	U20295 U20296 U20297 AF108889	118914 118914 X77397 M88307 U10150
	AAA92677.1 AAA33083.1 BAA94697.1 BAA94696.1 BAA96536.1	AAB67884.1 CAA67054.1 BAA87825.1 CAA62150.1 AAB46588.1	AAA85156.1 AAA85156.1 AAA85157.1 AAF65511.1	AAA833900.1 CAA78288.1 CAA54583.1 AAA87347.1 AAA19571.1 AAD10245.1

Oryza sativa Sorghum bicolor Sorghum bicolor Solanum tuberosum Hordeum vulgare Hordeum vulgare	Oryza sativa Oryza sativa Oryza sativa Cryza sativa Zea mays Triticum aestivum Nicotiana tabacum	Triticum aestivum Mesembryanthemum crystallinum Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Glycine max Craterostigma plantagineum	א א א א טוט כי ט
AP002482 Y12465 Y12464 X95997 AJ007990 X65606	U55768 AF004947 AB011968 AB011967 AF141378 AB011670 2164 U29095	M94726 Z26846 ACO84763 ABO02109 D88399 U73939 L38855 AJO05373	AF186020 AF186020 AF100162 AP002482 X12464 X10036 AF128443 Y12465 D26602 X95997 X82548 AF062479 AJ007990 X65606 U55768
BAA96628.1 CAA73068.1 CAA73067.1 CAA65244.1 CAA07813.1 CAA46556.1		AAA96325.1 CAA81443.1 AAG60195.1 BAA19573.1 BAA13608.1 AAD00240.1 AAB68962.1 CAA06503.1	CAACOSOS.1 AAE27340.1 AAC98509.1 BAA96628.1 CAA73067.1 CAA73068.1 BAA023582.1 CAA73068.1 BAA05649.1 CAA57898.1 CAA57898.1 CAA6559.1 CAA6556.1 AAC99329.1 CAA6556.1
Medicago truncatula Vicia faba Nicotiana tabacum Vitis vinifera Ricinus communis Ricinus communis	esculentu esculentu ssleri ssleri esculentu s	диид	Glycine max Craterostigma plantagineum Oryza sativa Oryza sativa Nicotiana tabacum Oryza sativa Triticum aestivum Nicotiana tabacum Mesembryanthemum crystallinum Triticum aestivum Vicia faba Chlamydomonas reinhardtii Glycine max Nicotiana tabacum Cucumis sativus Hordeum vulgare
U38651 293775 X66856 Y09590 L08196 L08188	AJJ32224 AJJ32224 AJJ32224 ABO52883 YO7520 X55349 X75440 AJJ32223 AF173655	AF215837 AF215833 AF215851 AF215852 AF215854 2163	L38855 AJ005373 AC084763 D88399 U73939 U73939 U73939 U73939 AB002109 U73939
AAB06594.1 CAB07812.1 CAA47324.1 CAA70777.1 AAA79851.1 AAA19853.1			AAB68962.1 CAA06503.1 AAG60195.1 BAA13608.1 AAD00239.1 BAA19573.1 AAD00240.1 CAA81443.1 AAA96325.1 AAC98509.1 AAC28509.1 AAD23582.1 AAD23582.1 CAA71142.1 CAA71142.1

Nicotiana tabacum Glycine max Zea mays Zea mays Oryza sativa	Oryza sativa Glycine max Nicotiana tabacum Lycopersicon esculentum	Oryza sativa Oryza sativa Zea mays Lycopersicon hirsutum	Lophopyrum elongatum Lophopyrum elongatum Lycopersicon esculentum Lycopersicon esculentum	Lycopersicon pimpinellifodum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Lycopersicon hirsutum Brassica napus	Nicotiana tabacum Lycopersicon hirsutum Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Brassica oleracea	Brassica oleracea Brassica oleracea Lycopersicon hirsutum Oryza sativa Populus nigra Populus nigra
AB028650 AB029165 M73028 AF210616 D88619	Y11414 AB029162 AB028652 X98308	2169 AP002071 00069 U67422 AF318490	273293 AF339747 AF131222 AF220603 U59316	U59315 U02271 AF220602 AF318491 AY028699	AF302082 AF318493 AF142596 AC073405 AP000391 AP000559 Y14286	X98520 X12530 AF318492 AB023482 AB041503 AB041504
BAA88222.1 BAA81736.1 AAA33500.1 AAG36774.1 BAA23339.1			CAA9/692.1 AAK11674.1 AAF43496.1 AAF76313.1 AAB47421.1	AAB47423.1 AAC48914.1 AAF76306.1 AAK11567.1 AAK21965.1	AAG25966.1 AAK11569.1 AAF66615.1 AAG03090.1 BAA83373.1 BAA84787.1	CAA67145.1 CAA73133.1 AAK11568.1 BAA78764.1 BAA94509.1 BAA94510.1
Oryza sativa Oryza sativa Triticum aestivum Oryza sativa	Brassica napus Brassica napus Hordeum vulgare Hordeum vulgare	Lycopersicon esculentum Glycine max	Gossypium hirsutum Lycopersicon esculentum Hordeum vulgare Hordeum vulgare	Hordeum vulgare Oryza sativa Oryza sativa Oryza sativa Petunia x hybrida	Gossypium hirsutum Antirrhinum majus Hordeum vulgare Pimpinella brachycarpa Gossypium hirsutum Gossypium hirsutum	Lycopersicon esculentum Gossypium hirsutum Gossypium hirsutum Glycine max Oryza sativa Oryza sativa Glycine max Glycine max
AB011967 AB011968 AB011670 AF004947	2165 Y11483 Y11482 AF021257 AF021256	2166 U44386 AF192758	2168 AF336286 X95296 X70879 X70877	X70876 D88617 D86618 X11415 Z13996	AF336283 AJ006292 X70880 AF161711 AF336278 AF336284 X11351	X99210 AF336282 AF336285 AB029161 Y11350 AC037425 AB029160
BAA83688.1 BAA83689.1 BAA34675.1 AAB62693.1	SEQ ID NO. 2 CAA72271.1 CAA72270.1 AAB72097.1		SEQ ID NO. 3 AAK19619.1 CAA64614.1 CAA50224.1	CAA5021.1 BAA2337.1 BAA2338.1 CAA72218.1 CAA78386.1	AAK19616.1 CAB43399.1 CAB50225.1 AAF22256.1 AAK19611.1 AAK19617.1	CAA67600.1 AAK19615.1 AAK19618.1 BAA81732.1 CAA72185.1 AAG13574.1 BAA81731.1 BAA81730.1

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Glycine max	Glycine max	Glycine max	Zea mays	Solanum tuberosum	Carica papaya	Zea mays	Alopecurus myosuroides	Alopecurus myosuroides	Glycine max	Glycine max	Zea mays	Zea mays	S116# 602	רפש זוושא פ	•	Cichorium intybus x C		Picea mariana	Glycine max	SO ## 602	Dea may 5	Gossypium mirsacum			Prunus serotina	Prunus serotina	Prunus serotina	Prinnis dulcis					Prunus serotina	Prunus serotina	Prunus serotina	Prunus serotina			Sinanis alba				פוותפת פס וממכיים	property makes
AF243373	AF243365	X10820	AF244701	503679	AJ000923	AF244688	AJ010448	AJ010449	AF243367	AF243370	AF244689	DF244694	10111011	AF.244693	AF244706	AJ296343		AF051214	AF243360	0000000000	AE244090	AF159229		2174	AE013161	X72617	1178814	V.0001	1007074	AE040079	AF040078	AE053886	AF053885	AF053884	AE043187	AF043186	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2176	806787	001714	OSTOTI		21//	X3882X
1 8087244	AAG34800.1	CAA71784.1	AAG34844.1	AAA68430.1	CAA04391.1	AAG34831.1	CAA09187.1	1 88100 AP	1 20202020	AAC34805.1	AMG34000.1	AAG34632.1	AAG24027.1	AAG34836.1	AAG34849.1	CAC24549.1	endivia	1 81122744	1.01120744	4.00.00.00W	AAG34841.1	AAE29773.1		SEO ID NO.		7 2 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.5.5.2.5.3.4.4.4.1.1.2.2.2.2.2.4.4.4.4.4.4.4.4.4.4	יייייייייייייייייייייייייייייייייייייי	CAA69388.1	AAB96/64.1	AAB96763.1	AAC61982.1	AAC61981.1	AAC61980.1	AAD02266.1	1 390000144	AAD02203.1			CAASBYSS.1	CAA/6116.1			CAA68190.1
			arieti	Cicer arietinum	Lotus japonicus	Helianthus tuberosus	Helianthus tuberosus	Petunia x hybrida	Glycine max	Glycine max	Nicotiana tabacum	Persea americana	pisim sativum		רוכפו מדת כדוומייי	Pisum sativum	Pisum sativum	Glycine max	Eschscholzia californica	Nicotiana tabacum	Sem duite	Distoring grandiflorim	Eustolla grandram	Petunia x nybrida	Petunia x hybrida	Torenia hybrida	Solanum melongena	Asparagus officinalis	Asparaqus officinalis	Glycyrhiza echinata				Euphorbla esura	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
	AB022732	AJ239051	AJ238439	AJ012581	AB025016	AJ000478	AJ000477	AF155332	D83968	AF022461	X96784	M32885	870371am	AF 1 7 2 7 0	AJ249800	029333	AF218296	D86351	AF014802	X95342	מסק שנינו נ	0	072654	AB006790	AF081575	AB028152	X70824	AB037245	DB037244	**************************************	AB022 / 33		2173	AF239928	AF243368	AF243361	AF243374	AF243362	AF243372	AF243363	AF243369	AF243366	AF243375	AF048978
	BAA74465.1	CAB43505.1	CAB41490.1	CAA10067.1	BAA93634.1	CAA04117.1	CAA04116.1	AAD56282.1	RAA12159.1	DBB94590.1		1.00000444		AAG09Z08.1	•	AAC49188.2	AAG44132.1	BAA13076.1	AAC39454.1	1 36363440	CAMPAGOO	AAD38930.1	AAB17562.1	BAA92894.1	AAC32274.1	BAA84072.1	CAA50155.1	DADA0324 1	DAD40324.1	BAB40323.1	BAA / 4466.1			AAF64450.1	AAG34803.1	AAG34796.1	pag34809.1	1 797 45 A A	1.70805344	1 90775747	7.007.E344	ר המאכיאיי	10040044	AAC18566.1

			CAA66035.1	X97349	Populus balsamifera subsp.	
SEO ID NO. 2	2181		trichocarpa	,		
AAD37375.1	AF145349		CAA76680.1	Y17192	Cucurbita pepo Donulus halsamifera suhso	
AAA32676.1	M37637	Arachis hypogaea	CAMODUSO. I	000164		
AAD37429.2	AF149279	Phaseolus vulgaris	trichocarpa	1000		
BAA82307.1	ഗ	10	BAA08499.1	D4955I	Oryza saczya	
CAA71494.1	X10468	Spinacia oleracea	BAA92500.1	APOUL383	Oryza saczya	
CAA64413.1	X94943	Lycopersicon esculentum	CAC21393.1	AJ401276	Zea mays	
AAB67737.1	L77080	Stylosanthes humilis				
AAB47602.1	L07554	Linum usitatissimum		2183		
BAB14143.1	090115	Armoracia rusticana	AAD03415.1	AF069494	Sinapis alba	
CAA66037.1	x97351	Populus balsamifera subsp.	AAA85440.1	U32624		
trichocarda			AAF27289.1	AF140613	Manihot esculenta	
C11C10C417	X90694	Medicado sativa	AAF27290.1	AF140614	Manihot esculenta	
1 66637 1	1.13654	-,	AAF66543.1	AF140609	Triglochin maritimum	
1 2000000	1151192	Glyctne max	AAF66544.1	AF140610	Triglochin maritimum	
1.2053344	DE244924		BAA92894.1	AB006790	Petunia x hybrida	
CARE 03027.1	J	Twoopersion esculentum	AAD56282.1	AF155332	Petunia x hybrida	
CAMBUSS/.I	A / 1.030	becolus milastis	CAA50155.1	X70824	Solanum melongena	
AAD3/42/.1	AF149277	Modification outside to	AAA32913.1	M32885		4
CAA62226.1	290693	Medicajo sariva	1 5227777	C7856X	Nicotiana tabacum	71
CAB67121.1	Y19023	ທ	CAMOSOU. I	75000	tabacum	,
BAA01877.1	D11102	Populus kitakamiensis	CAMBSS8U.1	A90/84	Nicoliana Labacum	
AAD11481.1	U51191	Glycine max	AAC32274.1	AF081575	Petunia x hybrida	
CAA80502.1	222920	Spirodela polyrrhiza	CAB43505.1	AJ239051		
AAB41810.1	L36156	Medicago sativa	CAA04117.1	AJ000478	Helianthus tuberosus	
AAD37430.1	AF149280	v,	CAA04116.1	AJ000477	Helianthus tuberosus	
1.002/COM	D14997	Orvza sativa	AAB17562.1	U72654	Eustoma grandiflorum	
CAA6225.1	X90692	Medicado sativa	AAG09208.1	AF175278	Pisum sativum	
CAR94692 1	AJ242742	,	BAA93634.1	AB025016	Lotus japonicus	
1 20010000	n11396		AAG44132.1	AF218296	Pisum sativum	
DAR41811.1	1,36157	Medicado sativa	AAC49188.2	U29333	Pisum sativum	
1 6577944	DE014502	E	AAB94587.1	AF022458	Glycine max	
ר אפרטאמיי	X57564	Armoracia rusticana	AAB94590.1	AF022461	Glycine max	
1.000044	DE0024	אפון שניניין שאייניין	BAA12159.1	D83968	Glycine max	
נימטראבימים	PT0011.		BAA84071.1	AB028151	Antirrhinum majus	
1.00150444	D83225	Populus nigra	AAB94588.1	AF022459	Glycine max	
ו יייייייייייייייייייייייייייייייייייי	X07348		BAA74465.1	AB022732	Glycyrrhiza echinata	
CAROOOSS	05000		BAA84072 1	AB028152	Torenia hybrida	
trichocarpa	2000	Title Cook and Cook				
AAA65636.1	L13653	-		7104		
AAF63026.1	AF244923	an .		10000		
BAA06335.1	D30653	Populus kitakamiensis	CAA62228.1	X90695	Medicago sativa	

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Lycopersicon esculentum Spinacia oleracea Arachis hypogaea Scutellaria baicalensis Armoracia rusticana Glycine max Zea mays Alopecurus myosuroides Solanum tuberosum Zea mays Glycine max Zea mays Glycine max Zea mays Glycine max Zea mays Glycine max Zea mays Solanum tuberosum Zea mays Solanum tuberosum Zea mays
L13654 Y10462 M37637 AB024439 X57564 2186 AF243368 AF243363 AF244694 AF243363 AF244694 AF244699 AJ010469 AF244699 AJ010450 AF244699 AF24365 AF24365 AF24365 AF243360
AAA65637.1 CAA71488.1 AAA32676.1 BAA77389.1 CAA40796.1 SEQ ID NO. AAG34803.1 AAG34797.1 AAG34801.1 AAG34801.1 AAG34801.1 AAG34801.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34800.1 AAG34800.1 AAG34800.1 AAG34837.1 AAG34837.1 AAG34831.1 AAG34831.1 AAG34831.1 AAG34831.1 AAG34831.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1 AAG34832.1
Trifolium repens Spinacia oleracea Medicago sativa Glycine max Spinacia oleracea Glycine max Stylosanthes humilis Medicago sativa Medicago sativa Medicago sativa Clycine max Scutellaria balcalensis Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon sculentum Lycopersicon sculentum Cycopersicon sculentum Lycopersicon sculentum Lycopersicon sculentum Cycopersicon esculentum Lycopersicon esculentum Lycopersicon sculentum Lycopersicon sculentum Cycopersicon esculentum Cycopersicon sativa Medicago sativa Nicotiana tabacum Nicotiana tabacum Nicotiana sylvestris Medicago sativa Medicago sativa Medicago sativa Armoracia rusticana Populus kitakamiensis Triticum aestivum Armoracia rusticana Populus balsamifera subsp. Spinacia oleracea Nicotiana tabacum Oryza sativa Hordeum vulgare
AJO11939 Y10469 L36158 U51193 AF244921 U51194 L77080 X90693 X90694 AF007211 AB024437 Y19023 X71593 AJ242742 L36981 U51191 U51192 X97351 L36156 AF149277 D42064 D30653 AJ401276 AF149280 L36157 D42064 D30653 X97351 X97351 X973528 X97375 AF149280 L36157 D306115 X97348
CAA09881.1 CAA1495.1 AAB41812.1 AAD11483.1 AAD11484.1 AAD11484.1 CAA62226.1 CAA62227.1 CAB519.1 CAA50597.1 CAA50597.1 CAA50597.1 CAA50597.1 CAA66037.1 trichocarpa AAB41810.1 BAA034050.1 AAD37430.1 BAA034181.1 BAA034181.1 BAA037430.1 CAA66034.1 CAA66034.1 CAA66034.1 CAA66034.1 CAA66034.1 CAA66034.1 CAA66034.1 CAA66034.1 BAAN14143.1 BAAN34108.1 BAAN34108.1

Lophopyrum elongatum				rycopersicon escurentum	Kalanchoe reduschenkol	Kalanchoe fedtschenkoi	Glycine max	Brassica napus	Ipomoea batatas	Daucus carota	Mesembryanthemum crystallin	Solanum tuberosum	Fragaria x ananassa	Nicotiana tabacum	Glycine max	Zea mays	Medicago sativa	Oryza sativa	Oryza sativa	Zea mays	Cucurbita pepo	Tortula ruralis	Zea mays	Vigna radiata		Oryza sativa	Zea mays	Oryza sativa	Marchantia polymorpha		Marchantia polymorpha	Marchantia polymorpha	Glycine max	Zea mays	Zea mays	Oryza sativa	Chlamydomonas eugametos	Oryza sativa	Orvza sativa
AF196350	2190	AFISBUSI	AE203480	AE203481	AF162661	AF1.62662	AF203479	AF203482	D87707	X56599	AF090835	AF115406	AF035944	AF072908	U69174	D85039	X96723	X81394	AF001168	028376	U90262	U82087	AJ007366	008140	AP000615	AF048691	D84408	X81393	AB017515	AB017517	AB017516	AB017515	069173	D87042	L27484	AC073166	Z49233	D13436	AF194413
AAG28490.1	٠,	AAF05112.1	AAF19402.1	AAF19403.1	AAF06969.1	AAF06970.1	AAF19401.1	AAF19404.1	BAA13440.1	CAA39936.1	AAD17800.1	AAD28192.2	AAB88537.1	AAC25423.1	AAB80693.1	BAA12715.1	CAA65500.1	CAA57157.1	BAA90814.1	AAA69507.1	AAB49984.1	AAB70706.1	CAA07481.1	AAC49405.1	BAA85396.1	AAC05270.1	BAA12338.1	CAA57156.1	BAA81749.1	BAA81751.1	BAA81750.1	BAA81748.1	AAB80692.1	BAA13232.1	AAA61682.1	AAG46110.1	CAA89202.1	BAA02698.1	AAF23900.1
Populus tremula x Populus	Citrus unshiu	Betula pendula		Lycopersicon esculentum	Citrus unshiu	Nicotiana suaveolens x		Malus x domestica	c		Picea mariana	Hordeum vulgare		- O	, 7:		Nicotiana tabacum	Prunus armeniaca		Orvza sativa	Mesembryanthemum crystallinum	Catharanthus roseus	Catharanthus roseus		Atriplex hortensis	Oryza sativa			Elaeis guineensis	Populus x canescens	Petunia x hybrida			()	Zea mays	Zea mays	Zea mays	Triticum aestivum	Lophopyrum elongatum
AF086839	AB011798	AJ279687	U79562	AJ250003	AB011799	AB058921	tabacum	168560	AB058922	tabacum	AF051247	AJ133276	AJ133277	AF055909		2188	AJ299252	AF071893	AF193803	AB036883	AF245119	AJ251250	AJ251249	AB023482	AF274033	AP002526		2189	AF236068	AF112887	AF183903	AF183904	214110	214109	X97725	X97726	X80820	058278	AF195612
AAD02848.1	tremuloides BAA36555.1	CAB66329.1	AAC77357.1	CAB61887.1	BAA36556.1	BAB40808.1		_	BAR40809.1	Nicotiana ta		CAR56223.1	CAR56224 1	0.000000000000000000000000000000000000	10001	SEO ID NO. 2	. ,	DAC24587.1	DDF23899.1	BAB16083.1	AAF63205 1	CAR96900.1	CAB96899.1	BAA78738.1	AAF76898.1			SEO TO NO. 2		AAD23407.1	AAG16973.1	AAG16974.1	CAA78483.1	CAA78482.1	CAA66310.1	CAA66311.1	CAA56786.1	AAC49404.1	AAG28460.1

Brassica napus rilium lengiflerum	DILLIM TONGLETON		Vigna radiata	Oryza sativa	Oryza sativa	Vigna radiata	Oryza sativa	Hordeum vulgare	Oryza sativa		Triticum aestivum					Triticum aestivum	Triticum aestivum	Triticum aestivum	Oryza sativa	Solanum tuberosum	Phaseolus vulgaris	Medicago sativa	Solanum tuberosum	Helianthus annuus	Solanum tuberosum	Vigna radiata	Solanum tuberosum	Petunia x hybrida	Zea mays	Zea mays	•		Momordica charantia	Lycopersicon peruvianum	Ivoopersioon pernylanum	Ageophia bypochondriaciis	ייין ייין ייין ייין ייין ייין ייין ייי			Nicotiana tabacum	Nicotiana tabacum	
010150	7,12839	APOOU969	S81594	AF042840	L18914	L20691	212828	M27303	212827	049105	049104	U48692	049103	048693	048691	U48689	048688	U48242	AF042839	U20296	AE030032	X52398	020294	U79736	020295	L20507	U20297	M80831	Y13974	X77397		2194	na055807	TO5094		M3942/	C / FZCTOW	J04099	9 2 029x	212619	X67075	
AAA19571.1	CAA /8301.1	BAA88540.1	AAB36130.1	AAC36059.1	AAA33900.1	AAA34237.1	CAA78288.1	AAA32938.1	CAA78287.1	AAC49587.1	AAC49586.1	AAC49583.1	AAC49585.1	AAC49584.1	AAC49582.1	AAC49580.1	AAC49579.1	AAC49578.1	AAC36058.1	AAA85156.1	AAD10244.1	CAA36644.1	AAA85155.1	AAB68399.1	AAA62351.1	AAA34238.1	AAA85157.1	AAA33705.1	CAA74307.1	CAA54583.1		SEO TO NO.		1.000.300.00	1.00170444	AAA34198.1	CABOL32/.1	AAA60745.1	CAA47461.1	CAA78265.1	CAA47460.1	
Dunaliella tertiolecta	Daucus carota	Sea mays	Cucimia sativis	•	מיס שיסינס	לפט וווקאס	Son mayo	מיים שומאת	רפש זווסאס		שנים ללים שנים לם			Timeseraicon escuilentum	Droesine namis		חסבתוו אינדוק היינדוק היינדי היינדי היינדי היינדי היינדי היינדוק היינדוק היינדוק היינדוק היינדוק היינדוק היינד	Frunds durces	Oryza saciva	GLYCLIIE mak			GIYCIIIE IIIAA	Lotus japonitous	٦.	Frunds durcis			Bluens prosa	Brassica napus	Oryza sativa	Capsicum annuum	ca juncea			Prunus avium	Pisum sativum	Capsicum annuum	Petunia x hybrida		Malus & domestica	
AF216527	X83869	115390	1400000 1400000	٦.	D84506	582324	U84507	AE289237	D38432		2191	087980	0	2132	7700CCF 4	AUC 10000	AE023472	AF213936	AF140606	AB052/88	2693/0	AB052785	AB052784	AF000392	AFUBU545	AF154930		2193	06868X	AF150059	AP000815	X98404	M88307	AF295637	X59751	AF292108	013882	1183402	95 80 8M	1510888	AE 10000 X	0000
AAF21062.1	CAA58750.1	1 6446644	AAA33443.1	AAKZOIO4.1	BAA12692.1	AAB47181.1	BAA12691.1	AAG01179.1	BAA22410.1			BAA13032.1			AADOI 600.1	CACU/ZUB.I	AAC32034.1	AAF20002.1	AAF07875.1	BAB19760.1	CAA93316.1	BAB19757.1	BAB19756.1	AAB69642.1	AAD16016.1	AAD42860.1			CAA61980.1	AAF73157.1	BAA87825.1	CAA67054.1	AAA87347.1	AAG27432.1	CAA42423.1	AAG11418.1	1.18926gg	1.1027CMA	1.00001000	1.00/CC44	AAE 63311.1	CAA43143.1

Nosa hybrid cultivar Nicotiana tabacum Oryza sativa Chlamydomonas reinhardtii Chlamydomonas reinhardtii Sorghum bicolor Fagus sylvatica Nicotiana tabacum Oryza sativa Oryza sativa Arachis hypogaea Petunia x hybrida Lycopersicon esculentum Sorghum bicolor Lycopersicon sculentum Sorghum bicolor Lycopersicon sativa Oryza sativa Oryza sativa	Solanum tuberosum Solanum tuberosum Trifolium repens Medicago sativa Spinacia oleracea Medicago sativa Spinacia oleracea Glycine max Medicago sativa Medicago sativa Scutellaria baicalensis Glycine max Nicotiana tabacum Nicotiana tabacum Clycine max Micotiana tabacum Micotiana tabacum Slycine max Glycine max Hedicago sativa Glycine max Trifolium max Medicago sativa Glycine max Trifolium max Medicago sativa
AY029067 AF325168 AF305911 AB042714 AB042715 X12464 AZ9971 AF203480 AF203480 Y12465 AF203481 AZ51330 AF21166	2196 S74753 2209 AJ011939 X90695 Y10469 L36158 AF244921 U51193 X90694 AB024437 U51194 D42065 D42065 U51191 U51191 U51192 AF149277 L36156 AF007211
AAK30005.1 AAG53979.1 AAG31141.1 BAB18104.1 BAB18105.1 CAA73067.1 CAA73067.1 CAA49592.1 AAF1734.1 AAF1734.1 CAA58466.1 AAF19402.1 CAA58466.1 CAA58466.1 AAF19402.1 CAA61889.1	SEQ ID NO. 2 AAB32591.2 SEQ ID NO. 2 CAA09881.1 CAA62228.1 CAA71495.1 AAB41812.1 AAB41812.1 BAA77387.1 BAA77387.1 BAA071663.1 AAD11484.1 BAA07664.1 BAA07664.1 AAD11482.1 AAD11482.1 AAD37427.1 AAB41810.1 CAB94692.1
Nicotiana sylvestris Solanum tuberosum Nicotiana glauca X Nicotiana Lycopersicon esculentum Lycopersicon esculentum Solanum tuberosum Zea mays Zea mays Zea mays Zea mays Cucurbita maxima	Oryza sativa Fagus sylvatica Fagus sylvatica Brassica napus Fagus sylvatica Oryza sativa Brassica napus Brassica napus Brassica napus Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Clycopersicon esculentum Clycopersicon esculentum Clycopersicon esculentum Clycopersicon esculentum Clycopersicon esculentum Clycopersicon esculentum Clycine max Nicotiana tabacum Oryza sativa Nicotiana tabacum Cra sativa
M74102 U30861 D13662 K03290 M13938 L06985 Z12611 L06606 X67950 X67950 X78988 X69972 M17108 X81647	2195 AF080436 AJ298993 AJ298980 AJ010093 AJ298981 AJ009609 AJ009609 AJ009609 AJ009609 AJ009609 AF110519
3.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	SEQ ID NO. 2: AAC32599.1 CAC09581.1 CAC09581.1 CAC09589.1 CAC09589.1 CAC09589.1 CAAC8995.1 CAAC8705.1 BAB32405.1 CAC24705.1 CAC24705.1

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Gentiana triflora Petunia x hybrida Nicotlana tabacum Lycopersicon esculentum Petunia x hybrida Forsythia x intermedia Solanum tuberosum Perilla frutescens Petunia x hybrida		Manihot esculenta Manihot esculenta Manihot esculenta Manihot esculenta Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Eycopersicon esculentum Nicotiana tabacum Petunia x hybrida Verbena x hybrida Petunia x hybrida Petunia x hybrida
D85186 ABD27454 AF190634 X85138 AF165148 AF127218 U82367 AB002818 AB002455	X77464 AB033758 AE006081 AF287143 X77460 AB047091 AF000372 AB047098 AB047096 AB047096 AB047096	2211 X77459 X77461 X77463 X77462 AF346431 U32644 Y18871 U32644 Y18871 U32643 AF346432 AF346432 AF346432 AF190634 AF190634 AB027454 AB027455 AF165148
BAA12737.1 BAA89008.1 AAE61647.1 CAA59450.1 AAD55985.1 AAD21086.1 AAB48444.1 BAA19659.1 BAA19659.1	AAE 1707 1.1 CAA54614.1 BAA93039.1 AAE 98390.1 CAA54610.1 BAB41018.1 AAB81683.1 BAB41021.1 BAB41023.1 BAB41023.1 BAB41019.1 BAB81682.1	SEQ ID NO. CRA54609.1 CRA54611.1 CRA54613.1 CRA54612.1 RAK28303.1 RAB36653.1 CRA5653.1 CRA5653.1 RAK28304.1 CRA59450.1 RAKE1647.1 BRA89008.1 BRA89009.1
Zea mays Triticum aestivum Stylosanthes humilis Oryza sativa Oryza sativa Populus balsamifera subsp. Lycopersicon esculentum	Oryza sativa Petroselinum crispum Medicago sativa Triticum aestivum Lycopersicon esculentum Oryza sativa Lycopersicon esculentum Nicotiana tabacum Populus kitakamiensis Hordeum vulgare Vigna angularis Populus kitakamiensis Phaseolus vulgaris Pinus sylvestris	Triticum aestivum Stylosanthes humilis Stylosanthes humilis Spinacia oleracea Raphanus sativus Manihot esculenta Manihot esculenta Manihot esculenta Manihot esculenta Moctiana tabacum Dorotheanthus bellidiformis Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Scutellaria baicalensis
AJ401276 X85228 L77080 AE014467 X66125 X97351 L13654	AF247700 L36981 X90692 X56011 Y19023 D14997 X71593 AB027752 D30653 AJ276227 D11337 D38051 AF149280	L36093 X53675 L37790 Y10462 X91172 X77463 X77463 X77461 X77461 X77461 X77463 X77461 X77463 X77463 X77461 X77463 X77461 X77461 X77463 X77461 X7
CAC21393.1 CAA59485.1 AAB67737.1 AAC49818.1 CAA66037.1 trichocarpa AAA65637.1	AAA98491.1 AAA98491.1 CAA62225.1 CAA62225.1 CAB67121.1 BAA03644.1 CAA50597.1 BAA0597.1 BAA01950.1 BAA01950.1 BAA01950.1	AAA32972.1 CAA37713.1 AAB02554.1 CAA71488.1 CAA62597.1 SEQ ID NO. CAA54609.1 CAA54613.1 CAA54611.1 CAA54612.1 AAB36653.1 AAB36653.1 AAB36653.1 AAB36653.1 AAB36652.1 AAK28304.1 BAAB3484.1

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Paeonia szechuanica Paeonia suffruticosa	Paeonia delavayi	-				Paeonia mairei	• •	Paeonia japonica	Paeonia japonica	Paeonia obovata	Paeonia obovata	Paeonia obovata	Paeonia tenuifoli	Paeonia anomala	Paeonia lutea	Paeonia anomala	Paeonia mairei	Paeonia szechuanica	Paeonia delavayi	Paeonia lutea	Paeonia szechuanica	Paeonia lutea	Paeonia tenuifoli			Oryza sativa	Pisum sativum	Triticum aestivum	Salix gilgiana	Musa acuminata	Brassica napus	Musa acuminata	Nicotiana tabacum	Oryza sativa	Nicotiana plumbaginifoli	Nicotiana plumba		Nicotiana plumbao
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AY016276 AY016275	AY016273	AY016272	AY016267	AY016266	AX016264	AY016263	AY016260	AY016259	AY016258	AY016257	AY016256	AY016254	AX016250	AY016248	AY016269	AY016247	AY016262	AX016277	AY016271	AY016268	AY016278	AX016265	AY016251		2214	072255	AJ251646	030323	AB029462	AF00152	X69887	AF004838	228697	U72253	X07280	M23120	022147	M63634
AAK15844.1 AAK15843.1	AAK15841.1	AAK15840.1	AAK15835.1	AAK15834.1	AAK15832.1	AAK15831.1	AAK15828.1	AAK15827.1	AAK15826.1	AAK15825.1	AAK15824.1	AAK15822.1	AAK15820.1	AAK15818.1	AAK15837.1	AAK15817.1	AAK15830.1	AAK15845.1	AAK15839.1	AAK15836.1	AAK15846.1	AAK15833.1	AAK15821.1		SEQ ID NO.	AAD10386.1	CAB85903.1	AAA90953.1	BAA89481.1	AAB82772.2	CAA49513.1	AAF08679.1	CAA82271.1	AAD10384.1	CAA30261.1	AAA51643.1	AAA87456.1	AAA34078.1
Citrus unshiu Sorghum bicolor	Solanum tuberosum Forsythia x intermedia	Scutellaria baicalensis	Manihot esculenta	Phaseolus lunatus	Ipomoea purpurea	Vitis labrusca x Vitis vinifera	Perilla frutescens	Perilla frutescens	Solanum berthaultii	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera	Vitis vinifera			Cucumis sativus	Cucurbita moschata	Elaeis quineensis	Cucurbita moschata	Cucurbita moschata	Cucurbita moschata	Plastid Pisum sativum	Phaseolus vulgaris	Spinacia oleracea	Elaeis guineensis	Spinacia oleracea	Chloroplast Oryza sativa	Plastid Oryza sativa	Plastid Oryza sativa	Paeonia californica	Paeonia californica	Paeonia californica	Paeonia californica	Paeonia rockii	Paeonia rockii	Paeonia rockii
AB033758 AF199453	U8236/ AF127218	AB031274	X77464	AF101972	AF028237	AB047091	AB002818	AB013597	AF006081	AF000372	AB047098	AB047096	AB047094	AB047092	AF000371		2213	M80571	AB042401	AF251795	AB049135	AB049134	AB042400	X59041	X79722	249091	AJ272082	X77370	AF155815	AJ242939	AJ242940	AY016286	AY016285	AY016284	AY016283	AX016281	AY016280	AY016279
BAA93039.1 AAE17077.1	AAB48444.1 AAD21086.1	BAA83484.1	CAA54614.1	AAD04166.1	AAB86473.1	BAB41018.1	BAA19659.1	BAA36422.1	AAB62270.1	AAB81683.1	BAB41025.1	BAB41023.1	BAB41021.1	BAB41019.1	AAB81682.1		SEO ID NO. 2		BAB17755.1	AAF64066.1	BAB39689.1	BAB39688.1	BAB17754.1	CAA41769.1	CAA56159.1	CAA88913.1	CAB75874.1	CAA54559.1	AAD38408.1	CAB44495.1	CAB45298.2	AAK15854.1	AAK15853.1	AAK15852.1	AAK15851.1	AAK15849.1	AAK15848.1	AAK15847.1

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Lycopersicon esculentum Oryza sativa	Oryza sativa	Solanum tuberosum			Nicotiana tabacum	Brassica napus	Nicotiana tabacum	Nicotiana tabacum	Hordeum vulgare	Hordeum vulgare			Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Malus x domestica	Raphanus sativus	Brassica nigra	Brassica nigra	Malua x domestica	Brassica nabus	Brassica napus	Brassica napus	Orvza sativa	pinns radiata	Tin coomon	TPOMICE MATE			Vigna unguiculata	1		Cicer arietinum	Cicer arietinum	Brassica oleracea	Cicer arietinum	Lycopersicon esculentum	Mangifera indica	•
U89257 AB037183	AF193803	U77655	AB016265	D38124	AB024575	AF084185	AF211531	AF211530	AF298231	AF239616		2216	AB001885	AB001883	AB001886	AB001884	AF052585	AF052690	aF269128	AF269126	AECOSES	AE032334	AF016011	AF016009	88810004	ABOOTOO	AFOOLESO OCCUPANTO	AE300/00	ABOULOOL	7227	1130896		2232	AJ011010	A,1005042	X84684	AJ006771	AF020390	AE004812	•
AAC49741.1 RAB03248.1	AAF23899.1	AAC29516.1	BAA97123.1	BAA07322.1	BAA76734.1	AAD45623.1	AAG43549.1	AAG43548.1	AAK01089.1	AAG59618.1	1.010.000	SEO TO NO.		BAA33201.1	1 70 333 04 1	1.5025.44a	1 01200744	AAC33344.	##C00470.1	AAG2/34/.1	AAG2/340.1	AACSSSOS. I	AAC2/695.1	77.020.1 1	##C6/07:1	BAA33200.1	AAU22316.1	AAG24863.1	BAA33200.1	ON OT ORS		T. / EEE / WWW	ON CT CRO	CDA09457.1	1 CPACA109 1	CA162 1	CAA07236.1	DAC25984.1	AAB61470.1	
Oryza sativa	Hevea brasiliensis	Glycine max	Hordeum vurgare	Nicotiana tabacum			Oryza sativa	Vitis vinilera	E	Citrus sinensis	Hevea brasiliensis	Glycine max	Nicotiana tabacum	Triticum aestlvum	Oryza sativa	Nicotiana tabacum	Nicotiana tabacum	Oryza sativa	Nicotiana tabacum	Nicotiana tabacum	Oryza sativa	Nicotiana tabacum			Nicotiana sylvestris	Nicotiana tabacum	Ivcopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Catharanthus roseus	Catharanthus roseus	Matricaria chamomilla	Lycopersicon esculentum	tabacum	ana		Nicotiana tabacum	m	Oryza sativa	Stylosanthes namata
U72254	AJ133470	041323	M62907	AF141654	M80604	AB027431	AB027432	AJ277900	AF030771	AJ000081	AE311749	M37753	M59443	AF112965	U72250	X81560	AF141653	AF030166	M60402	M60464	072249	M60403		2215	AB016264	D38123	1189255	038126	AF057373	AJ251250	AJ251249	AB035270	089256	081157	AB016266	D38125	AF211527	091857	AF190770	U91982
AAD10385.1		AAB03501.1				BAA77786.1	BAA77787.1	CAB91554.1	AAC14399.1	CAA03908.1	AAG24921.1	AAA33946.1	AAA63542.1	AAD28732.1	AAD10381.1	CAA57255.1	AAD33880.1	AAB86541.1	pp 63539.1	pp 34053.1	1.03801744	1.00001044	•	SEO ID NO.	_	1 1221CA40	1 277000044	AAC30047.1	DAMO (324.1	CAB96900.1	CAB96899.1	BAA87068.1	AAC49740.1	AAB38748.1	BAA97124.1	BAA07323.1	AAG43545.1	AAD00708.1	AAF05606.1	AAD09248.1

Nicotiana tabacum Lycopersicon hirsutum Lycopersicon hirsutum Oryza sativa Brassica oleracea	Fagus sylvatica Nicotiana tabacum Nicotiana tabacum Fagus sylvatica Lotus japonicus Mesembryanthemum crystalli	Mesembryanthemum crystallinum Lotus japonicus Zea mays Mesembryanthemum crystallinum Mesembryanthemum crystallinum Oryza sativa Zea mays	Fagus sylvatica Mesembryanthemum crystallinum Mesembryanthemum crystallinum Fagus sylvatica Oryza sativa Oryza sativa	Oryza sativa Populus nigra Spirodela polyrrhiza Petunia x hybrida Petunia x hybrida Oryza sativa Oryza sativa
AF142596 AF318490 AF318491 AJ243961 AB032473	2235 AJ277743 AJ277086 AJ277087 AJ298987 AF092431 AF075579	AF075580 AF092432 AF213455 AF075582 AF075603 U81960	AJ277744 AF097667 AF079355 AJ298988 2237 AF000391 AP001111	AP001111 AB041505 270524 2240 X92204 X92205 AP000559 "AP002817 AP001366
AAE66615.1 AAK11566.1 AAK11567.1 CAB51836.1 BAA92836.1	SEQ ID NO. CAB90633.1 CAC10358.1 CAC10359.1 CAC09575.1 AAD17804.1 AAC36697.1	AAC36698.1 AAC136698.1 AAC43835.1 AAC36700.1 AAC26828.1 AAC26828.1		BAA90507.1 BAA94511.1 CAA94437.1 SEQ ID NO. CAA63101.1 CAA63102.2 BAA84803.1 BAA92400.1 SEQ ID NO.
Lycopersicon esculentum Asparagus officinalis Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum	Vigna radiata Lycopersicon esculentum Lycopersicon esculentum Pyrus pyrifolia Cicer arietinum Vigna radiata Carica papaya	Carica papaya Prunus armeniaca Cicer arietinum Vitis vinifera Lycopersicon esculentum Glycine max	Glycine max Glycine max Brassica napus Zea mays Populus nigra Zea mays Populus nigra Oryza sativa	Oryza sativa Nicotiana tabacum Lophopyrum elongatum Lophopyrum elongatum Zea mays Catharanthus roseus Lycopersicon esculentum Lycopersicon esculentum Cyza sativa Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium
AJ012798 X77319 AJ012796 AF154421 AF154420	AF229795 AJ012797 AF023847 AB046543 AJ012687 AF229794 AF012578	AF0/98/4 AF184080 AJ005043 AF159124 AF159124 U28007 AF5,49318	AF249317 AF249317 AF023164 AB041503 AY028699 AF023165 AB041504	AB023482 AF131222 AF131222 AF339747 U67422 273295 U59316 AF220603 U59315 U59315
CAA10175.1 CAA54525.1 CAA10173.1 AAF70822.1	AAF67342.1 CAA10174.1 AAF21626.1 BAB21492.1 CAA10128.1 AAF67341.1 AAC77377.1	AAC28739.1 AAG12249.1 CAA06310.1 AAD45349.1 SEQ ID NO. 2 AAC61805.1	AAF91337.1 AAF91336.1 AAG16628.1 AAC27894.1 BAA94509.1 AAK21965.1 AAC27895.1 BAA94510.1	

Avena sativa Glycine max Gossypium hirsutum Gossypium hirsutum Glycine max Lycopersicon esculentum Petunia x hybrida	Oryza sativa Oryza sativa Oryza sativa		Sinapis alba Sinapis alba	· · · · · · ·	Plastid Spinacia oleracea Euphorbia esula Nicotiana sylvestris Solanum tuberosum	Solanum tuberosum Nicotiana sylvestris Lemna gibba Solanum tuberosum Nicotiana sylvestris	Prunus persica Mesembryanthemum crystallinum Nicotiana sylvestris Lycopersicon esculentum Nicotiana sylvestris	Apium graveolens Mesembryanthemum crystallinum Nicotiana sylvestris Solanum tuberosum Chloroplast Gossypium hirsutum Mesembryanthemum crystallinum
AJ133638 AB029165 AF336282 AF336284 AB029162 X99134	213333 D88619 Y11351	Y11415 AF336286 X96749	2244 X15894 X16436	AE034631 AB012637 M14443 U20983	X14341 AF220527 AB012637 U21111	U21113 AB012637 M29334 U21114 AB012638	L36064 AF003127 AB012636 M14444 AB012639	275663 AF003128 AB012641 U21112 L07119 AF003129
CAB40189.1 BAA81736.1 AAK19615.1 AAK19617.1 BAA81733.2 CAA67575.1	CAA/8386.1 BAA23339.1 CAA72186.1	CAA72187.1 CAA72218.1 AAK19619.1 CAA65525.1	SEQ ID NO. 2 CAA33903.1 CAA34459.1	AAB87573.1 BAA25391.1 AAA34147.1 AAA80589.1	CAA32526.1 AAF26741.1 BAA25390.1 AAA80591.1	AAA80593.1 BAA25389.1 AAA33396.1 AAA80594.1 BAA25392.1	AAA50310.1 AAB61236.1 BAA25388.1 AAA34148.1 BAA25394.1	CAA99993.1 AAB61237.1 BAA25396.1 AAA80592.1 AAA18529.1 AAB61238.1
Petunia x hybrida Antirrhinum majus Lycopersicon esculentum Pimpinella brachycarpa Lycopersicon esculentum Petunia x hybrida	Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Nicotiana tabacum Lycopersicon esculentum Nicotiana tabacum Lycopersicon esculentum	Zea mays Zea mays	Oryza sativa Lilium hybrid division I Pisum sativum	Oryza sativa Glycine max Glycine max Glycine max	Nicotiana tabacum Pimpinella brachycarpa Gossypium hirsutum Gossypium hirsutum Nicotiana tabacum	Petunia x nybilda Triticum aestivum Lycopersicon esculentum Oryza sativa Hordeum vulgare	Lolium temulentum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum
Z13996 AJO06292 X99210 AF161711 X95296	AB028650 AB028649 AB028652	U72762 X99134 AB028651	M73028 AF210616	2242 AJ237661 AB058642 Y11105	AY026332 AB029160 AB029159 AB029161	AB028650 AF161711 AF336285 AF336278 AB028652	213997 AB044084 X99210 X98355 X87690	AYOUGUS AF1114162 AB028649 AB028651 U72762 X98308 X95296
CAA78386.1 CAB43399.1 CAA67600.1 AAF22256.1 CAA64614.1	BAA88222.1 BAA88221.1 BAA88221.1	AAB41101.1 CAA67575.1 BAA88223.1	CAR83500.1 AAA33500.1 AAG36774.1	SEQ ID NO. 2 CAC19439.1 BAB40790.1 CAA71992.1	AAK08983.1 BAA81731.1 BAA81730.1 BAA81732.1	BAA88222.1 AAF22256.1 AAK19618.1 AAK19611.1 BAA88224.1	CAA78387.1 BAA96421.1 CAA67600.1 CAA67000.1 CAA61021.1	AAG22863.1 AAD31395.1 BAA88221.1 BAA88223.1 AAB41101.1 CAA66952.1

	Lycopersicon esculentum	Hordeum vulgare	Oryza satíva	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare	Oryza sativa	Oryza sativa	Oryza sativa		Hordenm willdare	מייסליטם	יייין איין איין איין איין איין איין איי	nordeum vurgare		Nicotiana svlvestris	Nicotiana sylvestris	Lycopersicon esculentum 2		Lycopersicon esculentum	Lycopersicon esculentum	Atriplex hortensis	Solanum tuberosum	Nepenthes alata	Solanum tuberosum	Nepenthes alata	Vicia faba	Vicia faba	Nepenthes alata				Apium graveolens var. dulce	Nicotiana tabacum	Solanum tuberosum	Zea mays	Spinacia oleracea			
2250	AJ242045	AF136942	AB023819	AF136941	AB011266	AB011269	AB019525	AB046401	AB023818	AB046401	AB021746	22.12.001.00k	ABO11000	ABULLEGO	ABUITZ6/	2261	164823	U31932	AF014808	X09591	AF014810	AF014809	AF274032	Y09826	AF080543	Y09825	AF080544	AF061436	AF061434	AF080542		2254	AP000615	AF215837	AF215852	AF215853	AF215854	AF215851	x75440	X55349	
SEQ ID NO. 2	CAB42052.1	AAD32651.1	BAB17824.1	AAD32650.1	BAA74583.1	BAA74586.1	BAA74587.1	BAB17826.1	BAB17823.1	RAR17825 1	2.02011000	1.0001/444	BAA/4300.1	BAA/4585.1	BAA74584.1	2	SEQ ID NO	AAB48944.1	AAD25160.1	CAA70778.1	AAD25162.1	AAD25161.1	AAF76897.1	Cap70969.1	AAD16014.1	CAA70968.1	AAD16015.1	AAF15946.1	AAF15944.1	AAD16013.1		SEQ ID NO.	BAA85398.1	AAG43998.1	AAF74566.1	AAF74567.1	AAF74568.1	DDF74565 1	1.000£1.440	CAA39036.1	
Lactuca sativa	Nicotiana sylvestris	σ	Glycine max	Nicotiana tabacum			Medicaco sativa)	Ninotions nlumbaninifolia	NICOLIGINA Primitagaminatoria	Cicer arietinum	Fagus crenata	Glycine max	Oryza sativa	Triticum aestivum		Nicotiana plumbaginitolia	Vigna radiata			_	Nepenches alaca	Nepentiles atata	Hordeum vulgare	Oryza sativa	Oryza saciva	Hellantnus annuas	Wepenings araca		Centaurea calcitrapa				Diriis nirifolia	Nepenthes alata		Organ cotium		C .	Nicotiana tabacum	
2007	AB012640	1130475	101964	V58229	AB012638	X55892	A5000E	AF0/231	X14/94	MALDY	AJ131044	AB006081	X12981	X13909	U73218	AF279250	M21398	AF279249	ı.	2245	055032	AB045894	AB045891	X56136	D32144	D32165	AB025359	AB045892	U01390	AE002460 Y09123	AB045893	AB002695	777710	10011004	ABOZ 107	000000000	AB024333	AB02000	055033	D26015	
ר מוכטיים	DAMOSIO# . 1	DAMACUSSU. 1	AAA60666.1	AAA301/2.1	CAR4110/.1	1.0203447	1.075776.1	AAC25//5.1	CAA32900.1	AAA34055.1	CAA10284.1	BAA24493.1	CAA31419.1	CAA32109.1	AAB18209.1	AAE89207.1	AAA34056.1	AAF89206.1			AAB03108.1		BAB20969.1	CAA39602.1		BAA06876.1		BAB20970.1	AAB03843.1	BAA965/8.1	BAB20971.1	L 70901449	ני כמכנותים	DAMO2242.1	BAASO440.1	1.0/602080	BAA/642/.1	BAA/8908.1	AAB03109.1	BAA22813.1	

Cryptomeria japonica Metasequoia glyptostroboide Metasequoia glyptostroboide Cryptomeria japonica	Glycine max Pisum sativum Pisum sativum Glycine max Glycine max Pisum sativum Pisum sativum Lycopersicon esculentum	Nicotiana tabacum Chenopodium rubrum Nicotiana tabacum Medicago sativa Medicago sativa Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Antirrhinum majus Nicotiana tabacum	Antirhinum majus Antirhinum majus Antirhinum majus Lycopersicon esculentum Medicago sativa Chenopodium rubrum Oryza sativa Lycopersicon esculentum Oryza sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Oryza sativa
X95542 X95546 X95545 X95543	2256 J03919 X68215 X68216 AF169830 J03920 X68218 X68217 AJ249996	2257 AJ011892 Y10162 AJ011894 X88864 AJ132929 AJ245415 AJ002588 AJ002589 AJ250397	AJ250396 AJ250398 AJ02530 AJ132930 AJ011776 AB024987 AJ243452 X92966 X92966 X92966 X92967 AJ243451 X82036
CAA64789.1 CAA64793.1 CAA64792.1 CAA64790.1	SEQ ID NO. 2 AAA33945.1 CAA48297.1 CAA48298.1 AAD50278.1 AAA33944.1 CAA48300.1 CAA48299.1	SEQ ID NO. 2 CAA09852.1 CAA71244.1 CAA61334.1 CAA61334.1 CAB40540.1 CAB51788.1 CAB51788.1 CAB60836.1 BAA33153.1 CAB61222.1	CAA03055.1 CAB61223.1 CAB61223.1 CAB60838.1 CAB40541.1 CAA09769.1 BAA86629.1 CAA662.1 CAA63541.1 CAA63541.1 CAA63541.1 CAA63541.1 CAA63543.1 CAA63543.1 CAB46641.1
Chlorella kessleri Picea abics Lycopersicon esculentum Lycopersicon esculentum	Nicotiana tabacum Oryza sativa Beta vulgaris Vicia faba Medicago truncatula Oryza sativa Ricinus communis Lycopersicon esculentum Lycopersicon esculentum Vitis vinifera	Vitis vinifera Oryza sativa Lycopersicon esculentum Brassica napus Brassica napus Raphanus sativus Brassica napus Brassica napus Brassica napus Brassica napus	Brassica napus Amaranthus hypochondriacus Raphanus sativus Coffea arabica Coffea arabica Coffea arabica Sesamum indicum Raphanus sativus Fagopyrum esculentum Avena sativa Raphanus sativus Helianthus annuus Raphanus sativus
X07520 Z83829 AJ132224 AJ010942	X66856 AB052884 AF173655 293775 U38651 AB052885 L08196 AJ132223 AJ132225	Y09590 AB052883 AF022874 2255 J05233 AF319771 X59808 X59294 M16860 X14555	X57850 X82121 X59802 U64443 AF054895 Y16976 AF240004 X59803 X17637 X17637 X59805 X76737 X59805 X76737
CAA68813.1 CAB06079.1 CAB52689.1 CAB19.1	CAA47324.1 BAB19863.1 AAD55054.1 CAB07812.1 AAB06594.1 BAB19864.1 AAA79761.1 CAB52688.1 CAB52690.1		CAA42472.1 CAA42472.1 CAA42472.1 AAC61981.1 AAC61983.1 CAA76573.1 AAK15087.1 CAA42473.1 AAD32713.1 CAA35631.1 CAA42475.1 CAA42475.1 CAA42477.1

	Nicotiana tabacum	Brassica napus	Brassica napus	Oryza sativa	Brassica napus	Brassica napus	Zea mays	Nicotiana tabacum	Oryza sativa	Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum		Lycopersicon esculentum	Nicotiana tabacum	Nicotiana tabacum	Oryza sativa	Glycine max	Lycopersicon esculentum &	Nicotiana tabacum			Lycopersicon esculentum	Solanum tuberosum	Lycopersicon esculentum	Hordeum vulgare	Tradescantia virginiana		Nicotiana tabacum	Cucumis sativus	Oryza sativa	Hordeum vulgare	Hordeum vulgare			Mesembryanthemum crystallinum	Hordeum vulgare		
2260	D26601	AJ010093	AJ010091	AF172282	AJ009609	AJ009608	U83625	AF325168	AF216314	AJ000728	AF165186	AB055514	AF203481	AF203480	AJ302651	D31964	AF305911	AF203479	AF096250	D26602	AF128443	AJ005077	AF110519	AE030879	AF110518	AF305912	AF009337	L27484	AF072908	X10036	AB011968	X65604	X65606	x96723	AF158091	AF090835	AJ007990		2262
SEO ID NO		CAA08997.1	CAA08995.1	AAF34436.1	CAA08758.1	CAA08757.1	AAC83393.1	AAG53979.1	AAG40578.1	CAA04261.2	AAF67262.1	BAB32405.1	AAF19403.1	AAF19402.1	CAC24705.1	BAA06731.1	AAG31141.1	AAF19401.1	AAD46406.1	BAA05649.1	AAD23582.1	CAA06334.1	AAD10057.1	AAC78558.1	AAD10056.1	AAG31142.1	AAC24961.1	AAA61682.1	AAC25423.1	CAA71142.1	BAA83689.1	CAA46554.1	CAA46556.1	CAA65500.1	AAF05112.1	AAD17800.1	CAA07813.1		SEQ ID NO.
Glycine max	Zed mays	Orvza sativa		sativ	Zea mays	Medicado sativa	Medicado sativa	Lycopersicon esculentum	Dancus carota	Glycine max	Nicotiana tabacum	_	~	Catharanthus roseus	Lycopersicon esculentum	Chenopodium rubrum	Adiantum capillus-veneris			Inpinus albus	Lupinus albus	Gossypium arboreum	Humulus lupulus	Humulus lubulus	Parthenium argentatum		Parthenium argentatum	Artemisia annua	Capsicum annuum	Lycopersicon esculentum	Artemisia annua	Orvza sativa	Orvza sativa	sia	Oryza sativa	Artemisia annua	æ	Nicotiana tabacum	Parthenium argentatum
D50869	050064	AP0078	AB024986	AJ133722	010077	X68741	X78504	A.1243454		D50871	089636	x92964	050870	086385	A.T243455		DB2349	,	2258	7275111	17071	Y12072	AB053486	AB053487	X82543	AF019892	X82542	036376	X84695	AF048747	AF112881	D85317	AB021747	AF136602	AB021979	AF149257	AF164026	097330	AF005201
BAA09465.1	AAC50013.1	AAA20236.1				1 5799447	•	CAR33212.1	ר ובפאאתתט	1.1504440	E 10100448	•	E 201000448	•	1.01.01.01	•	11560 1	٠	CE OT OTO		1.0000000	Cap 72793.1	BAR40665.1	E3901000	Cap57893.1	AAC78557.1	CAA57892.1	AAC49452.1	CAA59170.1	AAC73051.1	AAD17204.1	RAA19856.1	BAB36276.1	AAD32648.1	BAA36347.1	1.08778044	AAD45122.1	AAB93951.1	AAB93984.1

Solanum tuberosum Nicotiana tabacum Rubus idaeus Populus tremuloides Lolium perenne Pinus taeda	9 6 6	Caparoum announ Lithospermum crythrorhizon Glycine max Juglans nigra Pinus armandii	Tsuga canadensis Abies holophylla Pseudolarix amabilis Nothotsuga longibracteata Picea smithiana Abies beshanzuensis	Cedrus atlantica Larix gmelini Pseudolarix amabilis Pseudotsuga sinensis Tsuga canadensis	Nicotiana tabacum Petroselinum crispum Nicotiana tabacum Petroselinum crispum Cucumis sativus Petroselinum crispum Avena fatua
M62755 U50846 AF239687 AF041049 AF05221 U12013	039405 039405 AF239685 AF041050 U12012 X69955	AFZ1231/ D49367 X69954 AJZ78455 AF144502 AF144501	AF144525 AF144517 AF144527 AF144523 AF144504 AF144504	AF144515 AF144512 AF144512 AF144528 AF144510 AF144510	2275 AB020023 U56834 AF096299 AF121354 U58540 L44134 U48831 Z48431
AAA33842.1 AAB18638.1 AAF91310.1 AAC24503.1 AAF37732.1	AAB42382.1 AAB42383.1 AAF91308.1 AAC24504.1 AAA92668.1 CAC36095.1	AAG43823.1 BAAO8366.2 CAA49575.1 CAB97359.1 AAF73995.2 AAF73994.2	AAF74018.2 AAF74010.2 AAF74020.2 AAF74016.2 AAF73997.2 AAF74013.2	AAE74008.2 AAE74022.2 AAE74005.2 AAE74021.2 AAE74003.2 AAE74019.2	SEQ ID NO. BAA77358.1 AAC49528.1 AAD16139.1 AAC49529.1 AAC49529.1 AAC49527.1 CAA88331.1 CAA88326.1
Oryza sativa Oryza sativa Spirodela polyrrhiza Oryza sativa Solanum tuberosum	Berberis stolonifera Eschscholzia californica Eschscholzia californica Papaver somniferum	Phaseolus vulgaris Pelargonium x hortorum Cucumis sativus Pelargonium x hortorum	Oryza sativa Hordeum vulgare Hordeum vulgare Linum usitatissimum	Brassica napus Brassica napus Brassica napus Cicer arletinum Populus x generosa	Petroselinum crispum Petroselinum crispum Petroselinum crispum Populus x generosa Lolium perenne Rubus idaeus Lolium perenne Oryza sativa Nicotiana tabacum Lithospermum erythrorhizon Nicotiana tabacum Solanum tuberosum
APO01111 APO01111 Z70524 APO00391 U52079	2266 AF049347 AF005655 S65550 AF025430	2267 AF053354 U67861 AB006807 U07953	2268 AP000615 283834 Y14573 AJ005341	2269 X94624 272153 AJ401089 AJ006025 AF008183	X13325 X13324 AF008184 AF05223 AF239686 AF05222 X52623 D43773 D49366 U50845
BAA90508.1 BAA90507.1 CAA94437.1 BAA83352.1 AAD10836.1	SEQ ID NO. 2 AAD17487.1 AAC39358.1 AAB20352.1 AAC61839.1	SEQ ID NO. 2 AAC12934.1 AAB70884.1 BAA33378.1 AAC48977.1	SEQ ID NO. 2 BAA85400.1 CAB06083.1 CAA74909.1 CAA76487.1	SEQ ID NO. 3 CAA64327.1 CAA96523.1 CAC19877.1 CAA06820.1	CAA31696.1 AAC39366.1 AAE37734.1 AAE91309.1 AAE37733.1 CAA36850.1 BAA07828.1 BAA07828.1 BAA08365.1 AAB18637.1

	•	486	
Torenia hybrida Glycyrrhiza echinata Glycyrrhiza echinata Glycyrrhiza echinata Petunia x hybrida Cicer arietinum	Nicotiana tabacum Cucumis sativus Avena fatua Petroselinum crispum Nicotiana tabacum Petroselinum crispum Avena fatua Nicotiana tabacum Petroselinum crispum Betula pendula	Petroselinum crispum Nicotiana tabacum Nicotiana tabacum Glycine max Glycine max Hordeum vulgare Lycopersicon esculentum Cucumis sativus Prunus dulcis	Oryza sativa Brassica napus Lotus japonicus Nepenthes alata Prunus dulcis Chlamydomonas reinhardtii Chlamydomonas reinhardtii
AB028152 AB022733 AB001380 AB006790 AF081575 AJ249801 AB028151	2279 AF096299 L44134 248429 U48831 AF096298 U58540 248431 AB020023 U56834 AJ279697	AF121354 AF193771 AF193770 2280 AB052785 AB052784 AB052788 AF023472 AF016713 Z69370 AF213936	AF140606 AJ278966 AF000392 AF080545 AF154930 Z282 X80888 X78821 X62335
		AAD27591.1 AAF61864.1 AAF61863.1 SEQ ID NO. BAB19757.1 BAB19760.1 AAC32034.1 AAD01600.1 CAA93316.1	AAF07875.1 CAC07206.1 AAB69642.1 AAD16016.1 AAD42860.1 SEQ ID NO. CAA56851.1 CAA55398.1 CAA44209.1
Nicotiana tabacum Nicotiana tabacum Matricaria chamomilla Nicotiana tabacum Ipomoea batatas Dianthus caryophyllus	t.t	Glycyrrhiza echinata Glycyrrhiza echinata Glycyrrhiza echinata Lotus japonicus Cicer arietinum Cicer arietinum Helianthus tuberosus Helianthus tuberosus Glycine max Cicer arietinum Petunia x hybrida Pisum sativum	Pisum sativum Glycine max Eschscholzia californica Nicotiana tabacum Glycine max Persea americana Pisum sativum Nicotiana tabacum Glycine max Glycine max
AF096298 AF193771 AB035271 AF193770 2276 AB035183 Z98758	284385 284386 284386 284571 284384 2277 X98739 X98738	AB001379 AB022732 AB025016 AJ239051 AJ238439 AJ012581 AJ000478 AJ000477 AF022461 AJ249800 AF155332	U29333 D83968 AF014802 X96784 D86351 M32885 AF218296 X95342 AF022458
AAD16138.1 AAF61864.1 BAA87069.1 AAF61863.1 SEQ ID NO. 2 BAA87043.1			AAC49188.2 BAA12159.1 AAC39454.1 CAA65580.1 BAA13076.1 AAA32913.1 AAG44132.1 CAA64635.1 AAB94587.1

	Pisum sativum	Nicotiana tabacum	Pinus sylvestris	Zea mays	Zea mays	Nicotiana tabacum	Chloroplast Pisum sativum	Oryza sativa	Chloroplast Chlamydomonas	·	Orvza sativa	Chlamydomonas sp. W80		Oryza saczya	Cucurbita pepo	Marsilea quadrifolia	Ginkgo biloba	Pinus sylvestris	Chloroplast Pinus sylvestris		Craterosticma plantagineum	Claretostryma Frances-ma	Taxus baccara	Physcomitrella patens	Pinus sylvestris	Nicotiana tabacum		Mesembryanthemum crystallinum	Hordeum vulgare	Oryza sativa	Zea mays	Atriplex nummularia	Atriplex numnularia	Selaginella lepidophylla	Petunia x hybrida	Magnolia liliiflora	Antirrhinum majus	Zea mays	Zea mays	Pisum sativum	Zea mays	Zea mays
2290	X52148	M14417	L26923	X15408	M18976	M14418	M55147	AP000615	1.27668		DF022730	AD025313	AB033312	AF010582	AF260733	AJ003783	L26924	1.07501	132560	1 22561	100001	X /830 /	L26922	X72381	AJ001706	AJ133422	M29956	J05223	X60343	U31676	045856	002886	X75597	096623	X60346	X60347	X59517	X73151	045857	X73150	045858	045855
SEO ID NO. 2	CAA36396.1	AAA34075.1	AAA33780.1	CAA33455.1	DD33464.1	AAA34076.1	1 5 7 2 7 4 4 4 4	1.01010000	1 33868444	Arabouch:	APPOSIZE 1	HAD02133.1	BAA94304.1	AAB66887.1	AAG23799.1	CAA06030.1	papa3352.1	1 07755444	AMA33773.1	AAD10213.1	AADIUZI4.1	CAA55116.1	AAA89207.1	CAA51071.1	CAA04942.1	CAB39974.1	AAA33031.1	AAA33033.1	CAA42901.1	AAA82047.1	AAA87579.1	AAA03442.1	CAA53269.1	AAR59010.1	Cap42904.1	CAA42905.1	CAA42103.1	CAA51676.1	AAA87580.1	CAA51675.1	AAA87880.1	AAA87578.1
-	Pisum sativum	Pisum sativum	Spinacia oleracea	Spinacia oleracea	Oryza sativa	Triticum aestıvum	Brassica napus	Brassica napus	Nicotiana tabacum	Picea mariana	Ricinus communis	Oryza sativa	Orvza sativa	must be some about in m	ILICION GESTIAM	Oryza sativa		Triticum turgidum subsp. dutum	Oryza sativa	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Mesembryanthemum crystallinum	Nigotions tabacin	NICOTIANA LADACAM	Brassica rapa		Brassica oleracea var:		Hevea brasiliensis	Lolium perenne	Secale cereale	Oryza sativa	phalaris coerulescens	Phalaris coerulescens	Hordeum bulbosum		1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Oryza sativa			brassica napus
	U35831	X76269	X51462	X51463	AJ005841	AJ005840	076831	AF160870	X58527	AF051206	270677	n26547	100501		AF286593	D21836	D87984	AJ001903	AB053294	X80887	X78822	-	Arubaar4		AB010434	059379	AF273844		AF133127	AF159387	AF186240	AP002912	AF159389	AF159388	AF159385		2283	AP000616	AJ245900		2285	AF084554
	AAC49358.1	CAA53900.1	CAA35826.1	CAA35827.1	CAA06736.1	CAA06735.1	AAB52409.1	AAD45358.1	CAA41415.1	AAC32111.1	Cap94534.1	DANGE AG 1	BAA03340.1	AAB51522.1	AAE88067.1	BAA04864.1	BAA13524.1	CAA05081.1	1 3890 E 4 1	1.00003040 Cab56850.1	יי סטכח היינס	CAASSAY. I	AAC19392.1	CAA77847.1	BAA25681.1	AAB53694.1	AAG35777.1	alboglabra	AAD33596.1	AAD49232.1	AAD56954.1	BAB39913.1	AAD49234.1	AAD49233.1	AAD49230.1			BAA85440.1	CAB53493.1			AAD03693.1

AAA33667.1	107500	Pisum sativum	BAA03763.1	D16247	Nicotiana sylvestris
			1.00001447	X00037	Spinsols olerades
SEQ ID NO.	2234 Y11105	Pisum sativum	AAD20980.1	AF079782	Zea mays
BAB40790.1	AB058642	Lilium hybrid division I	BAA95705.1	AB042644	Oryza sativa
AAK08983.1	AY026332	Oryza sativa	BAA95704.1	AB042643	Oryza sativa
CAA64615.1	X95297	Lycopersicon esculentum			
BAA81730.1	AB029159	Glycine max		2298	
CAA67600.1	X99210	Lycopersicon esculentum	CAA44216.1	X62343	Nicotiana tabacum
BAA81731.1	AB029160	Glycine max	BAA03099.1	D13991	
AAF22256.1	AF161711	Pimpinella brachycarpa	CAA79622.1	219568	
AAK19615.1	AF336282	Gossypium hirsutum	CAC07423.1	AJ295837	Populus balsamifera subsp.
CAA78388.1	213998	Petunia x hybrida	trichocarpa		
BAA88221.1	AB028649	Nicotiana tabacum	AAF43140.1	AF217957	Populus tremuloides
BAA88224.1	AB028652	Nicotiana tabacum	CAA44217.1	X62344	Nicotiana tabacum
BAA81732.1	AB029161	Glycine max	CAA79625.1	219573	Medicago sativa
CAA64614.1	X95296	Lycopersicon esculentum	AAC35845.1	AF'083332	
AAK19617.1	AF336284	Gossypium hirsutum	AAC07987.1	AF038561	
AAK19611.1	AF336278		CAA46585.1	X65631	
BAA23337.1	D88617	Oryza sativa	AAG15553.1	AE294793	Eucalyptus saligna
CAA78387.1	213997	Petunia x hybrida	CAA53211.1	X75480	nii
CAC19439.1	AJ237661	Oryza sativa	AAB70908.1	AF010290	Lolium perenne
AAK19619.1	AF336286	Gossypium hirsutum	CAA74070.1	Y13733	Zea mays
CAB40189.1	AJ133638	~~	CAA06687.1	AJ005702	Zea mays
BAA96421.1	AB044084	Triticum aestivum	CAA13177.1	AJ231135	Saccharum officinarum
BAA88223.1	AB028651	Nicotiana tabacum	BAA19487.1	D86590	
AAB41101.1	U72762	Nicotiana tabacum	CAA51226.1	X72675	Picea abies
CAA61021.1	X87690	~	CAA05097.1	AJ001926	Picea abies
AAG22863.1	AY008692	Hordeum vulgare	CAA05096.1	AJ001925	Picea abies
AAD31395.1	AF114162	Lolium temulentum	CAA05095.1	AJ001924	Picea abies
BAA88222.1	AB028650	Nicotiana tabacum	AAB38774.1	U62394	Pinus radiata
CAA50221.1	X70876	Hordeum vulgare	AAC31166.1	AF060491	Pinus radiata
CAA50222.1	X70877	Hordeum vulgare	CAA86073.1	Z37992	Pinus taeda
CAA50224.1	X70879	Hordeum vulgare	CAA86072.1	237991	Pinus taeda
CAA72218.1	Y11415	Oryza sativa	BAA04046.1	D16624	Eucalyptus botryoides
AAG28526.1	σ	Nicotiana tabacum	AAD10327.1	063534	Fragaria x ananassa
BAA81736.1	AB029165	Glycine max	AAK28509.1	AF320110	Fragaria x ananassa
CAA78386.1	Z13996	Petunia x hybrida	AAB38503.1	079770	Mesembryanthemum crystallinum
			AAC35846.1	AF083333	Medicago sativa
	2296		AAA74882.1	L36823	Stylosanthes humilis
AAF75791.1	AF271892	Pisum sativum	AAF23409.1	AF207552	Brassica napus

	E	489	meau	#
a sylvestris tuberosum a sylvestris tuberosum a sylvestris a sylvestris max a sylvestris a sylvestris a sylvestris ta sylvestris	ca lvestris lvestris va esculentu munitum	a sativus oleracea oleracea sativus	fera gma plantag tabacum trabacum iris	ra iis ira ira 1s
Nicotiana sylvestris Solanum tuberosum Solanum tuberosum Nicotiana sylvestris Solanum tuberosum Zea mays Nicotiana sylvestris Nicotiana sylvestris Glycine max Nicotiana sylvestris Nicotiana sylvestris	Prunus persica Nicotiana sylvestris Nicotiana sylvestris Lactuca sativa Lycopersicon esculentum Polystichum munitum	Vicia faba Raphanus sativus Brassica olerace Brassica olerace Raphanus sativus Raphanus sativus	1.4.4.	Lycopersicon esculentum Lycopersicon esculentum Pyrus communis Vitis vinifera Zea mays Zea mays Oryza sativa Lupinus albus
20,012000000000000000000000000000000000				
ABO12638 U21113 U20983 ABO12637 U21112 X14794 ABO12637 U01964 ABO12641 ABO12641	L36064 AB012638 AB012636 D14002 M14444	2302 AF266760 AB012044 X95639 X95640 AB030696	AE030033 AF188843 AJ001292 AF326488 AF131201 AF024511 U60149	A70311 A73848 AE188844 AJ271796 AF326489 AF322973
92.1 93.1 889.1 889.1 900.1 394.1 172.1 396.1	310.1 393.1 388.1 104.1 425.1		BAAS2256.1 AAF80556.1 CAA04652.1 AAK26755.1 AAK26754.1 AAD29676.1 AAB81601.1 AAB67870.1	CAA54233.1 CAA52068.1 BAB40142.1 AAF80557.1 CAC33802.1 AAK26756.1 AAB82140.1
BAA25392.1 AAA80593.1 AAA80589.1 BAA25389.1 AAA80592.1 CAA32900.1 BAA25394.1 BAA25396.1 BAA25396.1	AAA50310.1 BAA25393.1 BAA25388.1 BAA03104.1 AAA34148.1 AAA68425.1	SEQ ID NO. AAF78062.1 BAA32777.1 CAA64895.1 CAA64896.1 BAA92259.1	AAF80556 CAA04652 AAK26755 AAK26754 AAD29676 AAB81601 AAB67870	CAA54 CAA52 BAB4C AAF8C CAC33 AAK2C AAB82 CAA11
tum		Iriacus	ıtum	11 ntum ntum
Apium graveolens Brassica oleracea Brassica rapa Apium graveolens Brassica napus Stylosanthes humilis Eucalyptus globulus Lycopersicon esculentum Hordeum vulgare	na alata na alata persica .um hirsutum	hybrida tabacum ris herosum hypochondriacus ata	Pisum sativum Lycopersicon esculentum Lemna gibba Pinus thunbergii Oryza sativa Oryza sativa Pinus thunbergii	Pseudotsuga menziesii Lycopersicon esculentum Oryza sativa Ginkgo biloba Zea mays Solanum tuberosum Solanum tuberosum Lycopersicon esculentum
Apium graveolens Brassica oleracea Brassica rapa Apium graveolens Brassica napus Stylosanthes humilis Eucalyptus globulus Lycopersicon esculen Hordeum vulgare Brassica rapa	Nicotiana Nicotiana Prunus per Gossypium	Petunia x hybrida Nicotiana tabacum Beta vulgaris Solanum tuberosum Amaranthus hypoch Vigna radiata Rumex palustris	Pisum sativum Lycopersicon esc Lemna gibba Pinus thunbergi: Oryza sativa Oryza sativa Pinus thunbergi.	Pseudotsuga menzie Lycopersicon escu- Oryza sativa Ginkgo biloba Zea mays Solanum tuberosum Solanum tuberosum
U24561 AF207554 AF207555 AF067082 AF207553 L36456 AF109157 AF146691 X92754	2299 U45958 U88587 2301 AF039598 X54090	X04966 X58230 Y13865 Z35160 X74732 AF279248 AF165529	X57082 M17558 M12152 X61915 AF061577 D00642 X13407 U51632	Z49749 M17559 AF022739 L23107 X68682 U21114 W11111
AAC15467.1 AAF23411.1 AAF23412.1 AAC61854.1 AAC3410.1 AAA74883.1 AAD18000.1 AAF72100.1 CAA63410.1	SEQ ID NO. 3AA87047.1 AAC15893.1 SEQ ID NO. 3AC34983.1	CAA28639.1 CAA41188.1 CAA74179.1 CAA84525.1 CAA52750.1 AAF89205.1	CAA33392.1 AAA33392.1 CAA43907.1 AAC15992.1 BAA00537.1 CAA31773.1	CAA89823.1 AAB82142.1 AAB82142.1 AAA60965.1 CAA48641.1 AAA80594.1 AAA80591.1

CAB46350.1	X18311	Solanum tuberosum	CAB46228.1	X18055	Arachis hypogaea
SEO TO NO.	2303		CAA89202.1	249233	Chlamydomonas eugametos
	AF196966	Citrus sinensis	AAF23900.1	AF194413	Oryza sativa
AAF18584.1	AF118132	ø	AAF23901.2	AF194414	Oryza sativa
AAF18585.1	AF118133	Nicotiana tabacum	AAC78558.1	AF030879	Solanum tuberosum
AAF14186.1	AF106068	Solanum tuberosum	CAA58750.1	X83869	Daucus carota
AAG35735.1	AF208543	Lycopersicon esculentum	AAB47181.1	\$82324	Zea mays
CAA63966.1	X94302	Solanum tuberosum	BAA22410.1	D38452	Zea mays
			BAA12691.1	D84507	Zea mays
SEQ ID NO.	2304		BAA12692.1	D84508	Zea mays
_	AF035944	Fragaria x ananassa	AAG01179.1	AF289237	Zea mays
BAA81750.1	AB017516	Marchantia polymorpha	AAC24961.1	AF009337	Tradescantia virginiana
BAA81751.1	AB017517	ส	BAA90814.1	AP001168	Oryza sativa
BAA81749.1	AB017515	๙	AAC32116.1	AF051211	Picea mariana
BAA81748.1	AB017515	๙	AAF06970.1	AF162662	Kalanchoe fedtschenkoi
AAD17800.1	AF090835	ıţ	AAF06969.1	AF162661	Kalanchoe fedtschenkoi
BAA12715.1	D85039	Zea mays			
AAB70706.1	U82087	Tortula ruralis	SEQ ID NO. 2	2305	
AAB49984.1	090262	Cucurbita pepo	AAB05871.2	U63784	Catharanthus roseus
AAC49405.1	008140	Viqna radiata	CAB65911.1	AJ249831	Lemna minor
CAA57157.1	X81394	Oryza sativa	AAF18999.1	AF212155	Allium cepa
AAA69507.1	U28376		AAC26855.1	AF069951	Enteromorpha intestinalis
CAA07481.1	AJ007366	Zea mays	AAC49896.1	AE'027727	Chlamydomonas reinhardtii
BAA13232.1	D87042	Zea mays	AAD02069.1	AF036939	Chlamydomonas reinhardtii
BAA12338.1	D84408	Zea mays			
AAB80693.1	U69174	Glycine max		2313	
AAC25423.1	AF072908	Nicotiana tabacum	CAA73067.1	X12464	Sorghum bicolor
AAD28192.2	AF115406	Solanum tuberosum	CAA73068.1	X12465	Sorghum bicolor
BAA13440.1	D87707	Ipomoea batatas	AAB62693.1	AE004947	Oryza sativa
CAA65500.1	X96723	Medicago sativa	AAF22219.1	AF141378	Zea mays
AAA61682.1	L27484	Zea mays	BAA83688.1	AB011967	Oryza sativa
AAA33443.1	L15390	Zea mays	BAA34675.1	AB011670	Triticum aestivum
BAA85396.1	AP000615	Oryza sativa	BAA83689.1	AB011968	Oryza sativa
AAC05270.1	AF048691	Oryza sativa	BAA96628.1	AP002482	Oryza sativa
CAA39936.1	X56599	Daucus carota	BAA05649.1	D26602	Nicotiana tabacum
CAA57156.1	X81393	Oryza sativa	AAD23582.1	AF128443	Glycine max
AAB80692.1	U69173	Glycine max	CAA71142.1	X10036	Cucumis sativus
BAA02698.1	D13436	Oryza sativa	CAA57898.1	X82548	Hordeum vulgare
AAG46110.1	AC073166	Oryza sativa	AAC99329.1	AF062479	Oryza sativa
AAK26164.1	AY027885	Cucumis sativus	CAA65244.1	X95997	Solanum tuberosum

				491		
Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum		Oryza sativa Stylosanthes hamata Lycopersicon esculentum	4 4 0 0	Nicotiana sylvestris Helianthus annuus Spinacia oleracea Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa	Zea mays Solanum tuberosum Capsicum annuum Lycopersicon esculentum Daucus carota	Vigna radiata Oryza sativa Zea mays
AF022012 AF022022 AF022013	2315 AB052887 AF205377 AF220199	AB03353/ 2316 U91857 U89257	AB037183 AB016265 U77655 AB024575	AB016266 2322 136129 037870 021836 026547 092541 085751 AB009592	2326 U16123 L29099 U87849 D11350	2327 AF139466 AF058796 Z50801
		SEQ ID NO. AAD00708.1	AAC49/41.1 BAB03248.1 BAA97123.1 AAC29516.1 BAA76734.1	SEQ ID NO. AAA3376.1 BAA07108.1 BAA07108.1 BAA05546.1 AAB51522.1 BAA36283.1 BAA360835.1	SEQ ID NO. AAA83439.1 AAA50305.1 AAB48484.1 BAA01954.1 CAA47636.1	SEQ ID NO. AAD27878.1 AAC14566.1 CPA90681.1
Oryza sativa Hordeum vulgare Hordeum vulgare	25 4 7	Triticum aestivum Nicotiana tabacum Oryza sativa Oryza sativa	Daucus carota Oryza sativa Craterostigma plantagineum Ipomoea batatas Fragaria x ananassa	Nicotiana tabacum Nicotiana tabacum Cucumis sativus Nicotiana tabacum Nicotiana tabacum Pisum sativum Nicotiana tabacum Cucumis sativus Pisum sativum	Nicotiana tabacum Lycopersicon esculentum Lycopersicon esculentum Cucumis sativus Pisum sativum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum	Oryza sativa Lycopersicon esculentum Oryza sativa Lycopersicon esculentum Lycopersicon esculentum
U55768 AJ007990 X65606	X65004 249233 U73938 L38855	AEZ10527 U29095 U73939 D88399 AC084763	X56599 AB002109 AJ005373 D87707 AF035944	2314 AF123508 AF123509 AB026822 AF123507 AF123506 X68215 AF123504 AB026823 X68216	AF123505 AF022020 AF022018 AB026821 X68218 AF022021 AF022015	AB023482 AF022019 AP002070 AJ24996 AF022014
AAB05457.1 CAA07813.1 CAA46556.1	CAA46554.1 CAA89202.1 AAD00239.1 AAB68962.1	AAE21062.1 AAB58348.1 AAD00240.1 BAA13608.1 AAG60195.1	CAA39936.1 BAA19573.1 CAA06503.1 BAA13440.1		AAD32143.1 AAC13250.1 AAC13258.1 BAA85820.1 CAA48300.1 AAC13261.1 AAC13255.1	BAA78739.1 AAC13259.1 BAA95840.1 CAB61882.1 AAC13254.1

Chloroplast Nicotiana	•	resti	Chlamydomonas sp. HS-5			Trifolium repens		Medicago sativa	Spinacia oleracea	Scutellaria baicalensis	Medicago sativa	Ipomoea batatas	Spinacia oleracea	Medicago sativa	Glycine max	Oryza sativa	Oryza sativa		Lycopersicon esculentum	va	Lycopersicon esculentum	Glycine max		Populus balsamifera subsp.		Cenchrus ciliaris	Petroselinum crispum	Spinacia oleracea	Spinacia oleracea	Oryza sativa	Nicotiana tabacum	Oryza sativa	Spirodela polyrrhiza	Glycine max	Phaseolus vulgaris	Vigna angularis	Triticum aestivum	Nicotiana tabacum	Phaseolus vulgaris	Triticum aestivum
872358	1	D42070	AU066497	,	2329	AJ011939	X90695	L36158	Y10469	AB024437	X90693	AJ242742	AF244921	X90694	U51193	AE014467	X66125	AJ401276	X19023	L36157	X71593	AF007211	X90692	X97351		U12315	L36981	X10462	X10464	D16442	D42064	AE014470	222920	051194	AF149280	D11337	X85228	D42065	AF149277	X56011
AAB31705.1	sylvestris	BAA07667.1	BAA78581.1			CAA09881.1	CAA62228.1	AAB41812.1	CAA71495.1	BAA77387.1	CAA62226.1	CAB94692.1	AAF63024.1	CAA62227.1	AAD11483.1	AAC49818.1	CAA46916.1	CAC21393.1	CAB67121.1	AAB41811.1	CAA50597.1	AAC98519.1	CAA62225.1	CAA66037.1	trichocarpa	AAA20473.1	AAA98491.1	CAA71488.1	CAA71490.1	BAA03911.1	BAA07663.1	AAC49821.1	CAA80502.1	AAD1.1484.1	AAD37430.1	BAA01950.1	CAA59485.1	BAA07664.1	AAD37427.1	CAA39486.1
Lycopersicon esculentum	Nicotiana tabacum	Lycopersicon esculentum	Pinus sylvestris	Pinus sylvestris	Hordeum vulgare	Oryza sativa	Hordeum vulgare	Chlamydomonas reinhardtii	Asarina barclaiana	Pinus sylvestris	Zea mays	Hordeum vulgare			Lycopersicon esculentum	Glycine max	Sinapis alba	Vigna radiata	Sinapis alba		Oryza sativa	Apium graveolens	Pisum sativum	ä	Oryza sativa	Oryza sativa	Polystichum munitum	Solanum tuberosum	Physcomitrella patens	Cicer arietinum	Vigna radiata	Pisum sativum	Cryptomeria japonica	Brassica napus	Tetraselmis sp. RG-15			Chloroplast Nicotiana		
M17633	X64198	J03558	X58515	X58514	AF218305	AE094776	AJ006296	AF195794	AF241524	216408	U23188	X63052	X95727	U23189	X61287	001964	X16436	AF139465		AB012637	D00641	275663	X56538	AF093617	X13909	X13908	M34396	021114	AB026686	AJ131044	AF279250	X69215	AB013728	X61610	AF017998		2328	572356		
AAA34140.1		AAA34186.1	CAA41405.1	CAA41404.1	AAF23819.1	•	•		AAE44702.1	CAA78900.1	AAA64414.1	CAN44777.1	CAA65042.1	AAA64415.1	CAA43590.1	AAA50172.1			CAA33903.1	BAA25390.1	BAA00536.1	CAA99993.1	CAA39883.1	AAC79711.1	CAA32109.1	CAA32108.1	AAA68425.1	AAA80594.1	BAA77273.1	CAA10284.1	AAF89207.1	CAA49149.1	BAA32346.1	CAA43804.1	AAB70556.1		SEO ID NO.		svlvestris	

Cicer arietinum Chlamydomonas sp. HS-5 Flaveria trinervia	Lycopersicon esculentum Petunia x hybrida	Petunia x hybrida Lycopersicon esculentum	Antirrhinum majus			Nicotiana tabacum		Zea mays	Zea mays	E	Pimpinella bracnycarpa 4	;	Cucurbita pepo	Zea mays	Tortula ruralis	Oryza sativa	Oryza sativa	Oryza sativa				Marchantia polymorpha	Zea mays		Marchantia polymorpha	Zea mays	Glycine max	Nicotiana tabacum	Glycine max	Medicago sativa Mesembryapthemim crystallinum	ואסספוורי ל כני כניים ביים ביים ביים ביים ביים ביים ביים
AB025002 AU066535 Y18576	2333 X98308 Z13997	Z13996 X99134	AJ006292	ABU28650 AB028652	AB028649	072762 np028651	X95296	AF210616	M73028	X99210	AF161711	PEEC	190262	AJ007366	U82087	AP000615	X81393	AF048691	008140	AB017515	AB017516	AB017515	D87042	115390	AB017517	D84408	u69173	AF072908	069174	X96/23	Arususaa
BAA76430.1 BAA78593.1 CAC34412.1	SEQ ID NO. 2 CAA66952.1	CAA78386.1 CAA67575.1	CAB43399.1	BAA88222.1 BAA88224.1	BAA88221.1	AAB41101.1	CDD64614.1	AAG36774.1	AAA33500.1	CAA67600.1	AAF22256.1	CIN CIT		Caa07481.1	AAB70706.1	BAA85396.1	CAA57156.1	AAC05270.1	AAC49405.1	BAA81749.1	BAA81750.1	BAA81748.1	BAA13232.1	AAA33443.1	BAA81751.1	BAA12338.1	AAB80692.1	AAC25423.1	AAB80693.1	CAA65500.1	AAD1 /800.1
Glycine max Nicotiana tabacum Populus kitakamiensis	Populus kitakamiensis Glycine max Populus balsamifera subsp.	Medicago sativa	Oryza sativa Glycine max	Oryza sativa		Persea americana	Oryza sativa	Oryza sativa	Cicer arietinum	Fishin salivan Granaria x anabassa		Oryza sativa	Mesembryanthemum crystallinum	Spinacia oleracea	Zea mays	Zea mays	Pisum sativum	m i	Nicotiana paniculada	NICOTIANA PANICULACA	Solanum cuberosum	FISUR SALIVOR	Oryza saciva	אייייי ממרדע מייי	Avena saciva	Scherriella dubia	Optiment oresections	-		Chlamydomonas reinhardtii	Oryza sativa
U51192 AB027752 D11102	D30653 AF145350 X97348	L36156	AF014468 H51191	AP002482	0000	330 AJ133146	D50307	D50301	AJ005041	X89829	AE 308387 X53130	013512	AF003124	X65742	X12872	M16220	X89828	AF329673	AB027001	AB027002	Y10380	M97476	D13513	M97477	AF216582	-τ	X66614	AF 323074	100310	69669X	AF017362
AAD11482.1 BAA82306.1 BAA01877.1	BAA06335.1 AAD37376.1 CAA66034.1	trichocarpa AAB41810.1	AAC49819.1	BAA96643.1		SEQ ID NO. 2	BAA08845.1	BAA08830.1	CAA06308.1	CAA61947.1	AAG21429.1	BAA02729.1	AAB61592.1	CAA46649.1	CAA31366.1	AAA33435.1	CAA61946.1	AAK19324.1	BAA77604.1	BAA77603.1	CAA71408.1	AAA33642.1	BAA02730.1	AAA33643.1	AAF74220.1	CAA09669.1	CAA47293.1	AAK19325.1	AAC60374.1	CAA49590.1	AAB70542.1

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											tum					subsp. pekinensis			49)4															folia					
Beta vulgaris	Pisum sativum	Ipomoea batatas	Ipomoea batatas	Triticum aestivum	Solanum tuberosum	Cicer arietinum	Ipomoea batatas	Citrullus lanatus	Hordeum vulgare		Lycopersicon esculentum	Hordeum vulgare	Ipomoea batatas	Triticum aestivum		rapa	Zea mays	Sorghum bicolor	Zea mays	Oryza sativa	Pisum sativum	Ipomoea batatas	Pisum sativum	Brassica napus	Pisum sativum		Vicía faba	Ipomoea batatas	Citrullus lanatus	Cicer arietinum										Nicotiana tabacum
X78900	X96766	AF:068260	AJ252316	221969	X61187	AF356003	AJ249256	AF032473	X67151	D50317	U85497	066876	AJ249257	X14350	AY028314	AF347698	238111	AF010283	S48563	066041	X08728	AJ245392	X96765	AJ271162	X96764	X76940	X76941	279635	AF032471	AF356005		2339	X79008	X19009	X61205	X79137	X79138	X79141	X79136	X79135
CAA55516.1	CAA65541.1	AAC21562.1	CAB52196.1	CAA79980.1	CAA43490.1	AAK27719.1	CAB55495.1	AAB91468.1	CAA47626.1	BAA23490.1	AAC49943.1	AAC49729.1	CAB55496.1	CAA32533.1	AAK27727.1	AAK27685.1	CAA86227.1	AAB94012.1	AAB24191.2	AAB38781.1	CAA69978.1	CAB51610.1	CAA65540.1	CAB89863.1	CAA65539.1	CAA54259.1	CAA54260.1	CAB01911.1	AAB91466.1	AAK27721.1		SEQ ID NO.	CAA55641.1	CAA55642.1	CAA43513.1	CAA55738.1	CAA55739.1	CAA55742.1	CAA55737.1	CAA55736.1
Zea mays	Zea mavs	Orvza sativa	Zea mays	Solanum tuberosum	Ipomoea batatas	Daucus carota	Orvza sativa	Orvza sativa	Cucumis sativus	Fragaria x ananassa	Dunaliella tertiolecta	Chlamydomonas eugametos		Oryza sativa	Solanum tuberosum	Picea mariana	Arachis hypogaea	Daucus carota	Zea mavs	Zea mays	2 may 2		Zea mavs	Tradescantia virginiana		Lilium longiflorum	Nicotiana tabacum			Citrus unshiu	Lycopersicon esculentum	Citrullus lanatus	Solanum tuberosum	Cucumis melo	Perilla frutescens	Cucumis melo	Lycopersicon hirsutum	Lycopersicon esculentum	Lycopersicon esculentum	Lycopersicon esculentum
D85039	L27484	X81394	U28376	AF115406	D87707	X56599	AC073166	D13436	AX027885	AF035944	AF216527	249233	AF194413	AF194414	AF030879	AF051211	X18055	X83869	D84507	582324	D38452	D84508	AF289237	AF009337	AP001168	024188	070923	 	2337	AF184598	088089	AF032472	X74982	AF030383	AF249917	AF030384	AF184345	081033	U81034	U85496
BAA12715.1	1 2 8 2 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Caa57157.1	AAA69507.1	AAD28192.2	BAA13440.1	CAR39936.1	DAG46110.1	1.022010MI	AAK26164.1	AAB88537.1	AAF21062.1	CAA89202.1	AAF23900.1	AAF23901.2	AAC78558.1	AAC32116.1	CAR46228.1	CAA58750.1	BA12691 1	1 18177844	1.101/1020	1.0261440	DAG01179 1	1.17.17.14 A	BA400814 1		AAD52098.1	•	SEO ID NO.		AAC49941.1	AAB91467.1	CAA52917.1	AAB91463.1	AAF66436.1	AAB91464.1	AAD56405.1	AAB40723.1	AAB40724.1	AAC49942.1

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Zea mays Lupinus albus Zea mays Zea mays Triticum aestivum Lupinus albus Anemia phyllitidis Pisum sativum Volvox carteri	Glycine max Chlamydomonas reinhardtii Chlamydomonas reinhardtii Chlamydomonas incerta Glycine max Daucus carota Zea mays Zea mays		Gossypium hirsutum Lycopersicon esculentum Hordeum vulgare Hordeum vulgare Oryza sativa Oryza sativa Oryza sativa Hordeum vulgare
L10633 X70184 L10636 X52878 U76896 U47660 X69185 X54844	M21296 K03281 M10064 AF001379 M21297 U63927 L10635 K74654	M33373 M33372 X54845 D63138 X54846 X54846 AB006604 AB006602 AB006602	2346 AF336286 X95296 X70879 X70877 X70876 D88617 V11415 X70880
AAA99436.1 CAA49736.1 AAA19709.1 CAA37060.1 AAD10492.1 AAB03267.1 CAA48929.1 CAA38613.1	AAA34009.1 AAA33102.1 AAA33101.1 AAB60936.1 AAA34010.1 AAA19707.1 CAAS2718.1	AAA33803.1 AAB03892.1 CAA38614.1 BAA82639.1 CAA38615.1 SEQ ID NO. BAA21926.1 BAA21924.1 BAA19112.1	SEQ ID NO. AAK19619.1 CAA614.1 CAA50224.1 CAA5022.1 CAA50221.1 BAA23337.1 BAA23338.1 CAA72218.1 CAA72218.1
Micotiana tabacum Nicotiana tabacum Zea mays Zea mays Zea mays Zea mays Oryza sativa Oryza sativa Oryza sativa		Triticum aestivum Oryza sativa Oryza sativa Cryza sativa Eleusine indica Solanum tuberosum Eleusine indica Oryza sativa Oryza sativa Zea mays Oryza sativa	Cicer arietinum Triticum aestivum Oryza sativa Solanum tuberosum Zinnia elegans Eleusine indica Zinnia elegans Triticum aestivum Eleusine indica Zea mays Zea mays
X79005 X79004 U17979 U73459 AF007580 D12627 AB046416 X79140	AB046414 AF180356 X61206 X79139 Y17186 AF079782 2342 U76746	U76895 AC084320 D13224 AE059287 Z33382 AF059289 D30716 D30717 L10634 X78143	X98406 U76744 X79367 Z33402 D63136 AF059290 D63137 U76745 X74656 X74655
CAA55640.1 CAA55639.1 AAA82736.1 AAB67607.1 AAB64289.1 BAA02152.1 BAB21260.1 CAA55741.1		AAD10490.1 AAK09229.1 BAA02505.1 AAD20178.1 CAA83847.1 AAD20180.1 BAA06381.1 BAA06382.1 AAA19708.1 CAA5022.1	CAA67056.1 AAD10487.1 CAA55912.1 CAA83853.1 BAA82637.1 AAD20181.1 BAA82638.1 AAD10488.1 AAD20179.1 CAA52720.1 CAA52719.1

														.;	. 111 cm					49	6																					
Ricinus communis		Hordenm willgare	Dhroomitee anetralis			Phragmites australis	Phragmites australis	Oryza sativa	Hordeum vulgare	Hordeum vulgare	Hordon vilasta				Mesembryantnemum crystallium	Nicotiana tabacum	Oryza sativa	Zea mays	Nicotiana tabacum	Antirrhinum majus	Lycopersicon esculentum	Lycopersicon esculentum	Medicago sativa	Petroselinum crispum	Lycopersicon esculentum		Medicado sativa	Chlamydomonas reinhardtii	Lycopersicon esculentum	Chenopodium rubrum	Medicado sativa	Petroselinum crispum	Modifica Openitor	Medicago saciva	11100crana cabacan	Allium cepa	Nicotiana tabacum	Pisum sativum	Capsicum annuum	Ipomoea batatas	Medicago sativa	Petunia x hybrida
AJ132228	07.0	2348 1170470	AE 1294 / 9	ABUSSASO	ABOSSEST	AB055632	AB055629	AF129485	AF129484	AF129480	1200161	WO SOOT OF		2349	AF234652	073937	D64036	M60526	AF289467	X97637	Y1.7225	AJ297917	AF129087	L34206	A,T297916	7870004	X20202X	AB035141	Y17226	Y10160	1,07042	Y12785	05455	A0409	782880	ABUU6U33	D61377	X70703	AF247135	AF149424	X82268	X13646
CAA10608.1			AAE36491.1	BAB32443.1	BAB32444.1	BAB32445.1	BAB32442.1	AAF36497.1	AAF36496.1	1 2073244	AAE JOS 22.1	CACIDORITE			AAE40430.1	AAC04324.1	BAA19553.1	AAA33479.1	AAG01534.1	CAA66233.1	CAA76700.1	CAC15504.1	AAD28617.1	AAC41680.1	CAC15503.1	1.031504kg	CAA50132.1	BAB18271.1	CAA76701.1	CA271242.1	AAB41548.1	CBB73323 1	יי ססטניייט	CAA4/099.1	CAASB / DI. I	BAA21673.1	BAA09600.1	CAA50036.1	AAF81419.1	AAD37790.1	CAA57719.1	CAA73997.1
10			Gossypium hirsutum	Gossypium hirsutum	Antirrhinum majus	Oryza sativa	Pimpinella brachycarpa	Orvza sativa		יייי יייטאר אומיי	Glycine max	Oryza sativa	_	Oryza sativa subsp. indica	Petunia x hybrida	Glycine max	Gossypium hirsutum	Orvza gativa	Syden east		Nicotiana tabacum	NICOCHAING COMMING	GLYCLINE MAA	Uryza sativa			Nicotiana tabacum		# 10 C 2 C C C C C C C C C C C C C C C C C	SOLAMMIN CUDELOSAM	Vicia raba		Nicotiana sylvestits	Ricinus communis	Nicotiana sylvestris	Nepenthes alata	Vicia faba	Vicia faba	Vicia faba	Atriplex hortensis		Lycopersicon esculentum
AB029161	AF336283	AF336278	AF336284	AF336282	AJ006292	X11350	AF161711	AC037425	0910004	ABUZSIOU	AB029159	X11351	X99210	X15219	Z13997	AB029165	AF336285	V11414	SCOCK CW	3130164	AF 2 10010	AB02000	ABU29162	D88619	AB028652	AB028649	U72762		2347	TUBEZO	AF061436	YUSBZB	064823	AJ007574	U31932	AF080544	Y09591	AF061434	AF061435	AF274032	AF080543	AF014809
BAA81732.1	AAK19616.1	AAK19611.1	AAK19617.1	AAK19615.1	CAB43399.1	CAA72185.1	DDF2226.1	1.061044	AAG13374.1	BAA81/31.1	BAA81730.1	CAA72186.1	CAA67600.1	CAA75509.1	CAA78387.1	BAA81736.1	1 8 L D L M A A	ר רוככר האים	1.0355444	T. VECTORE	AAGSO / 4 . 1	BAABBZZZ. 1			BAA88224.1	•	AAB41101.1		٠.	CAA / 0968.1	AAF15946.1	CAA70969.1	AAB96830.1	CAA07563.1	AAB48944.1	AAD16015.1		DDF15944 1	AAF15945.1	DDF76897.1	AAD16014.1	AAD25161.1

Thlaspi arvense	Sorghum bicolor	Asparadus officinalis		TYCING man	Nepera racemosa	Glycine max	Capsicum annuum	Catharanthus roseus	Nicotiana tabacum		Glycine max	Solanum melondena	Solanum melongena	Solanum melongena	Nepeta racemosa	Mentha x piperita	Mentha x piperita	Mentha x piperita	Mentha spicata	Zen mavs		ded mays	Catharanthus Ioseus	Pisum sativum	Brassica napus	Zea mays	Zea mays	Brassica napus	Brassica napus	Glycine max	Triticum aestivum			Brassica napus	Brassica napus	Brassica napus	Brassica napus	Brassica napus	Convolvulus arvensis			Pisum sativum
L24438 T		ABU37244 F		2	_	AE022157 (AF122821 (ر ر		D14990	X70981	Y09424	16		DE124817	AF124815	V2123	70T0V	Y11404	AJ295719	AF218296	AF214009	X81830	Y11403	AF214008	AF214007	D83968	AB036772		2355	X09437	U59443	1159444	1159446	1159445	AF233284		2356	079958
AAA19701.1	AAC39318.1	BAB40323.1	BAB40324.1	AAB94589.1	CAA70575.1	AAB94584.1	1 C8C7CTAR	CADECEO2 1	CABOUST	AAD4 /832.1	AAB94588.1	CAA50645.1	BAA03635.1	CAA50312.1	CAA70576.1	1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 10259447	1 2117744	AAD44132.1	AAD44130.1	CAA5/423.1	CAA72208.1	CAC27827.1	AAG44132.1	AAG14963.1	CAA57424.2	CAA72207.1	AAG14962.1	AAG14961.1	BAA12159.1	BAB40322.1		SEO ID NO.	_	AAC08048.1	1 00000000	AACCB047.1	1 0805044	1.0000004	7.00101044	SEO ID NO.	AAB72110.1
	Eupnorbia esura Vigna aconitifolia	Oryza sativa	Capsicum annuum	Nicotiana tabacum	mi con moniforta	VIGINA MINGALCATACA	Nicotiana tabacum	Pisum sativum	Petunia x hybrida	Medicado sativa	sesbanta rostrata	Contains and the	Vigna radiata			Glycine max		Lycopersicon esculentum	Pisum sativum	Lycopersicon esculentum	Zea mavs		Micotiana tabacum	NICOLIAIIA CADACAII	Triticum aestrumin	Avicennia mailina	Nicotiana tabacum	Oryza sativa	Lycopersicon escurentum	Catharantnus Loseus	Brassica oferacea	Lycopers.con escurencial	Oryza sativa	Prunus armentaca	Zea mays	Zea mays	Oryza sativa	Mesembryanthemum crystallinum	Pseudotsuga menzles11	Picea mariana		
	AF242308 M99497	X58194	DF247136	AF289465	CO FC 0 7 3 CO	X89400	AF289466	AF153061	X83619	00000	782270	1995/7	AF129886		2352	AF180143	M28059	L23762	L29077	X73419	DE034946	AF034740	Ar 1 / 00 4 0	AB026055	M62720	AF262934	AB026056	015971	X82938	AF091621	017250	AX004247	AP001081	AF008910	AJ002959	AF032468	D17786	AF165420	AJ131733	AF051240		2354
	AAF65766.1	CDD4111	100140044	AME 01420.1	AAG01532.1	CAA61581.1	AAG01533.1	AAF73236.1	1 70585447	1.5000000	CAA57721.1	•	AAD30506.1		SEQ ID NO. 2	AAE03236.1	AAA34309.1	AAA34125.1	AAA64427.1	CAA51821.1	ריייייייייייייייייייייייייייייייייייייי	•	AAD51109.1	BAB40310.1	AAA34310.1	AAF73016.1	BAB40311.1	AAB02168.1	CAA58111.1	AAD42941.1	AAA86089.1	AAG23847.1	BAA90392.1	AAB63513.1	CAA05772.1	AAC12662.1	BAA21006.1	AAF22280.1	CAA10494.1	AAC32141.1		SEQ ID NO.

											11	_			49	8																		napus		
	Oryza sativa Oryza sativa	Capsicum annuum	Orvza sativa		Nicotiana tabacum	Medicago sativa	Ipomoea batatas	Avena sativa	Pisum sativum	Nicotiana tabacum	Chlamydomonas reinhardtii	Lycopersicon esculentum	Pisum sativum	Medicago sativa	Oryza sativa	Petunia x hybrida	Nicotiana tabacum		•	5	×	Malus x domestica			u)			Brassica oleracea	Zea mays	an.	u	Brassica oleracea	olerac	Brassica napus subsp. r	Brassica napus	Brassica napus
X83880 X70703 AJ250311	AF194415 AF177392	AE247136	AF216315	D61377	U94192	X82270	AF149424	X79993	AF153061	X69971	AB035141	AJ297917	AF154329	X82268	AF216316	X83440	X83879		2361	083687	D11080	AF057134	,	2362	AF078082	Y12531	X98520	X12530	U82481	AB000970	U20948	X18260	X14286	AJ245479	M97667	000443
CAA58761.1 CAA50036.1 CAC13967.1	AAF23902.1 AAD52659.1	AAF81420.1	AAKO1/10.1	BAA09600.1	AAB58396.1	CAA57721.1	AAD37790.1	CAA56314.1	AAF73236.1	CAA49592.1	BAB18271.1	CAC15504.1	AAF73257.1	CAA57719.1	AAG40580.1	CAA58466.1	CAA58760.1			AAB97617.1	BAA01853.1	AAC97607.1			AAD21872.1	CAA73134.1	CAA67145.1	CAA73133.1	AAB93834.1	BAA23676.1	AAC23542.1	CAB41879.1	CAA74662.1	CAB89179.1	AAA33008.1	AAA62232.1
Triticum aestivum Helianthus annuus Prunus dulcis	Zea mays Orvza sativa	•	20 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Cyamonsis tetradonoloba		a)	Phraomites australis			Medicado sativa	æ	•~	Orvza sativa	Medicado sativa	Medicaco sativa	٠	<i>U</i> 2	Petunia x hybrida	Nicotiana tabacum	Nicotiana tabacum	Petunia x hybrida		Trifolium repens	Brassica napus	Nicotiana tabacum	Oryza sativa	Nicotiana tabacum	Oryza sativa	Cicer arietinum	Ricinus communis	Orvza sativa	Zea mavs	Medicago sativa	Medicado sativa	Euphorbia esula	
AF161719 AY029172 AF209910	U79961 AP001550		2357	U31544	43003001.4	A.7275318	A.7295156		235R	X68411	x77763	AP001278	AB059621	X68409	X68410	X83619	A.7295939	X83620	X08607	AJ224163	AJ224165	AJ224164	X99100	X12674	AJ002315	AP001551	AJ002314	X13437	AJ131048	X11591	Y11527	AF061509	X66469	L07042	AE242308	AF194416
AAF80450.1 AAK31596.1 AAF22842.1	AAB72113.1 RAA92985.1			AAA86532.1	CAA06338.1	1 62613947	1.0587.747	1.0001040	C ON UT Ogo	. ,	CAN54407	1.005CAAG	BAB40983 1	CAB4847	1.2/15/44/2	1.07484447	CACOR564.1	CAA58595.1	CAA69899.1	CAA11860.1	CAA11862.1	CAA11861.1	CAA67554.1	CAA73214.1	CAA05329.1	BAA92966.1			CAA10288.1		CAA72291.1	BAC24574.1	CAA47099.1	AAB41548.1	AAF65766.1	AAF23903.1

Pisum sativum Brassica napus Oryza sativa Sorghum bicolor Sorghum bicolor	Stylosanthes humilis Arachis hypogaea Lycopersicon esculentum Spinacia oleracea Nicotiana tabacum Populus nigra Linum usitatissimum Spirodela polyrrhiza		Populus balsamifera subsp. Armoracia rusticana. Populus balsamifera subsp.	Populus kitakamiensis Glycine max Scutellaria baicalensis Lycopersicon esculentum	Glycine max Spinacia oleracea Populus kitakamiensis Triticum aestivum Lycopersicon esculentum Pinus sylvestris Spinacia oleracea Populus nigra Medicago sativa
X75327 S77096 AF323586 U12196 U12195	2367 L77080 M37637 X94943 Y10468 AB027753 D83225 AF049881	D49551 X97348 AF149280 AJ242742 AF149279 AF244924	X97351 X57564 X97349	D30652 U51191 AB024439 Y19023 X71593	U51192 Y10463 D38051 X85230 I13654 AF291667 Y16776 D83224 I36157
CAA53076.1 AAB33843.1 AAG43027.1 AAC49268.1 AAC49267.1		BAA08499.1 CAA66034.1 trichocarpa AAD37430.1 CAB94692.1 AAD37429.2	CAA66037.1 trichccarpa CAA40796.1 CAA66035.1	trichocarpa BAA06334.1 AAD11481.1 BAA77389.1 CAB67121.1 CAB50597.1	AAD11482.1 CAA71489.1 BAA07241.1 CAA59487.1 AAG62637.1 AAG02215.1 CAA76374.2 BAA11852.1
Brassica oleracea Brassica oleracea Brassica oleracea Brassica oleracea Brassica rapa	Brassica rapa Brassica rapa Brassica rapa Brassica oleracea Brassica oleracea Ricotiana tabacum Brassica napus Oryza sativa		Spinacia Oleracea Spinacia oleracea Oryza sativa Oryza sativa Avicennia marina	Beta vulgaris Beta vulgaris Zea mays Oryza sativa Nicotiana tabacum	Amaranthus hypochondriacus Atriplex hortensis Amaranthus hypochondriacus Oryza sativa Avicennia marina Hordeum vulgare Apium graveolens Nicotiana plumbaginifolia Zea mays
Y14285 M76647 Z18921 Y18259 D38563	D30049 D88193 D38564 AB032473 AB032474 AF08885 AY028699 L27821	AF172282 AC073405 AC073405 AP001800 2364 AF045770	M31480 U69142 ABO01348 ABO37421	X58462 X58463 X58463 AF215823 AB044537 Y09876	AF10200 AF017150 X69770 AF000132 AB030939 AB043540 D26448 AF196292 U87848
CAA74661.1 AAA33000.1 CAA79355.1 CAB41878.1		_	AAA34025.1 AAB41696.1 BAA21098.1 BAA96794.1	BAB18543.1 CAA41376.1 CAA41377.1 AAG43988.1 BAB19052.1 CAA71003.1	AAE'73828.1 AAB70010.1 CAA49425.1 AAB58165.1 BAA96793.1 BAB18544.1 BAA05466.1 AAF08296.1 AAB47571.1

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Medicago sativa	Tortula ruralis		Oryza sativa	Pisum sativum	Lilium hybrid division I	Gossonium hirsutum	Petunia x hybrida	Minter and the same		Nicotiana tabacum	Gossyptum nirsurum	Gossyptum nirsucum	clycine max	Glycine max	Glycine max	Nicotiana tabacum	Nicotiana tabacum	Glycine max	Glycine max	Oryza sativa	Oryza sativa	Gossypium hirsutum	Lycopersicon esculentum	Lycopersicon esculentum	Lolium temulentum	Hordeum vulgare	Triticum aestivum	Hordeum vulgare	Lycopersicon esculentum	Nicotiana tabacum	Zea mays	Zea mays	Oryza sativa	Avena sativa	Gossypium hirsutum	Nicotiana tabacum	Petunia x hybrida	Zea mays
2372 AF084200	AF157017	2373	AY026332	Y11105	AB058642	7536285	AE 330203	012337	AB028649	AB028652	AF336284	AF336282	AB029162	AB029161	AB029159	AB028651	U72762	AB029165	AB029160	X11415	X98355	AF336278	X99134	X95296	AF114162	AY008692	AB044084	X87690	X98308	AB028650	AF210616	M73028	AJ237661	AJ133638	AF336286	AF198499	213998	AF320614
	AAD46189.1	SEO TO NO.	. ,	T 29917447	BAB40790 1	1.001001744	AAKISOLO.1	CAR/838/.1	BAA88221.1	BAA88224.1	AAK19617.1	AAK19615.1	BAA81733.2	BAA81732.1	BAA81730.1	BAA88223.1	AAB41101.1	BAA81736.1	BAA81731.1	CAA72218.1	CAA67000.1	AAK19611.1	CAA67575.1	CAA64614.1	AAD31395.1	AAG22863.1	BAA96421.1	CAA61021.1	CAA66952.1	BAA88222.1	AAG36774.1	AAA33500.1	CAC19439.1	CAB40189.1	AAK19619.1	AAG28526.1	CAA78388.1	AAK09327.1
Glycine max Populus balsamifera subsp.	Nicotiana tabacum	Zea mays	<u>ر ۲</u>	Oryza sativa	Arachis hypogaea	Gossypium hirsutum	cia	Nicotiana tabacum	Asparagus officinalis	Nicotiana sylvestris			Zantedeschia aethiopica	Diam sativim	•	מאסט ליייי שיייקרייין	Hordeum Vurgare	Mesembryantnemum crystarrium	Spinacia oleracea	Hellanthus anniques	Lycopersicon escurentum	Nicotiana sylvestris	Nicotiana tabacum	Gossypium nirsucum	Hellanthus annuus	Hordeum Vulgare	Chiamydomonas ap: moo	Colamydomonas reimaracii.	Exception postiving	ILLCICON ACOCAVON	permia pemana		antirrhing majus	מוויכה שוומיוליאייות			Antithing majes	Antililiam majus Zea mays
AF007211 X97350	D11396	AJ401276	x56011	AP001383	M37636	AF155124	D90115	J02979	DB042103	M74103		2368	AF053311	9090011	A0000000	AU238097	AJ238/45	AJ250951	D63425	Y14707	Y14762	X60219	AB041518	AE037051	Y14429	AJ238744	ABOUSOBS	AF014927	114/03 110104E	AUCIOADO	AJZ / 9689	0,000	2303 7 TOT 4	2011004	AJULIBZZ	87078X	X92369	AJUL1621 U89496
AAC98519.1 CAA66036.1	tricnocarpa BAA01992.1	CAC21393.1		BAA92500.1	AAB06183.1	AAD43561.1	BAA14143.1	1 80105 444	1 09010440	1.05075444	T.000FCWW	C ON OT One		AAC/0400.1	CARU4142.1	CAB59893.1	CAB59895.1	CAB96145.1	BAA22194.1	CAA75009.1	CAA75054.1	CAA42780.1	BAB16430.1	AAB94892.1	CAA74775.1	CAB59894.1	BAA83594.1	AAB66330.1	CAA/5055.1	CAA09194.1	CAB66331.1			CABSES / U. I	CAB56569.1	CAA63061.1	CAA63113.1	CAB56568.1 AAB51071.1

Pyrus pyrifolia Malus w domestica	Lycopersicon esculentum Pisum sativum	Rumex palustris Nicotiana glutinosa	Pyrus communis	hellantnus ammus Vigna radiata	Nicotiana tabacum Nicotiana tabacum		Brassica napus	Citrus unshiu	Petunia x hybrida	Nicotiana tabacum	Perilla frutescens	x nybrida		Sue	Sorghum bicolor			Nicotiana tabacum	Gentiana tritlora	Nicotiana tabacum	Scutellaria Dalcalensis	Perilla frutescens	Forsythia x intermedia	Lycopersicon esculentum	Dorotheanthus bellidilormis	Solanum tuberosum		Vitis vinifera		vinitera	Vitis labrusca x Vitis vinilera	Vitis vinifera	Vitis vinifera	Vitis vinifera	
	X98627 Y00478 Lyco M98357 Pis			L29405 HeL U06047 Vig			2381 ar287143 Bra			_		. 86			53		32						18	X85138 LY		U82367 So	93			AB047095 Vi	AB047090 Vi	AB047092 Vi	AB047094 Vi	AB047096 Vi	
BAA76387.1	CAA67216.1 CAA68538.1	CAA71140.1	CAA60576.1	AAB71421.1	CAA67119.1		SEQ ID NO. 2	AAE 96390. I	EAA89009.1	AAF61647.1	BAA36421.1	BAA36423.1	AAA59054.1	BAA36422.1	AAF17077.1	AAB36652.1	AAK28304.1	AAB36653.1	BAA12737.1	AAK28303.1	BAA83484.1	BAA19659.1	AAD21086.1	CAA59450.1	CAB56231.1	AAB48444.1	BAB41020.1	BAB41026.1	BAB41024.1	BAB41022.1	BAB41017.1	BAB41019.1	BAB41021.1	BAB41023.1	
Zea mays	•	Spinacia oleracea Nicotiana tabacum	Spinacia oleracea	מוניסלוים מוניסלים מונים מוניסלים מוניסלים מוניסלים מוניסלים מוניסלים מ	Brassica oleracea	Brassica napus prassica oleracea	Brassica juncea	Carica papaya	Petunia x hybrida		Pelargonium x nortorum	Actinidia deliciosa	Petargonium & norcorum	Betula pendula n-third n hibrida	Fetunia x liybirda	Nicotiana tabacam	Populus eurameticana	Lycopersicon escurencial	NICOTIANA LADACAM	Frunus persica	Perargonium A morecum	CUCUMILS METO	Lycopersicon escurencen	Lycoperation eachtman	Petunia x myorida	Matus X domestros	Nicotiana tabacum	prunus persica	Prunus persica	Cucumia sactivas	Prunus armentaca	Prunus mume	Malus x domestica	Malus X domestica	Nicotiana giucinosa
aF320613	2375	AF110228	AF110229	AE110230	2379 X81629	L27664	A81828 AF252628	U68215	L21978	AF254125	019856	AB003514	007953	Y10749	L21976	246349	AB033504	AB013101	AB012857	AF129074	U67861	X95553	254199	X58273	L21979	AJ001646	229529	X77232	AF129073	AF033582	AF026793	AB031027	Y14005	AF030859	054565
1 2000044			AAF14245.1	AAF14246.1	SEQ ID NO. 2 CAA57285.1	AAA32981.1	CAA57284.1	AAC98808.1	AAA33697.1		AAB70883.1	BAA21541.1	AAC48977.1	CAA71738.1	AAC37381.1	CAA86468.1	BAA94601.1	BAA34924.1	BAA83466.1	AAF36484.1	AAB70884.1	CAA64799.1	CAA90904.1	CAA41212.1	AAA33698.1	CAA04895.1	CAA82646.1	CAA54449.1	AAF36483.1	AAC67233.1	AAC33524.1	BAA90550.1	CAA74328.1	AAC36461.1	AAA99792.1

Daucus carota Oryza sativa 77 Glycine max Daucus carota 22 Brassica rapa subsp. pekine 72 Physcomitrella patens	Lupinus albus Lupinus albus Iupinus albus Ipomoea batat Spirodela pun Phaseolus vul Glycine max Ipomoea batat Anchusa offic Ipomoea batat	Lycopers Glycine Oryza sa Glycine Oryza sa Brassica Brassica Ricinus Nicotian Lycopers Petunia Nicotian Lotus ja Solanum Chaseolu Spinacia	69 Glycine max Cichorium intybus
D26574 AF145728 AF184277 D26578 AF268422 AB028072	2387 AB037887 AB023385 AJ006224 AF200826 AJ001270 AF200824 AF200824 AF200824 AF200825 AJ006870 AB029086	AB023388 AB023388 AB023387 2389 D38220 D38219 AF314093 X14060 L11563 X14058 X80670 U95317 U76701 U01029 M32600 X54097 D86226 M33154	AF055369 X84103
BAR05623.1 AAD37697.1 AAE01764.2 BAA21017.1 AAE73482.1 BAA93460.1	SEQ ID NO. 3 BAA97745.1 BAA82130.1 CAA06921.1 AAF19822.1 BAA92365.1 CAA04644.1 AAF19820.1 AAF19820.1 AAF19821.1 AAF19821.1 AAF19820.1 BAA970634.1 CAA07280.1		AAD19790.1 CAA58909.1
Vitis vinifera Petunia x hybrida Vitis vinifera Vitis vinifera Vitis labrusca x Vitis vinifera Zea mays	Chloroplast Nicotiana Chloroplast Nicotiana Nicotiana sylvestris Chlamydomonas sp. HS-5 Oryza sativa Physcomitrella patens Glycine max	Glycine max Pimpinella brachycarpa Oryza sativa Oryza sativa Oryza sativa Pimpinella brachycarpa Pimpinella brachycarpa Oryza sativa Oryza sativa Craterostigma plantagineum Craterostigma plantagineum Daucus carota Physcomitrella patens Oryza sativa Physcomitrella patens Daucus carota Physcomitrella patens	Physcomitrella patens Glycine max
AB047098 AB027454 AF000372 AF000371 AB047091 X13500	2385 S72356 S72358 D42070 AU066497 2386 AF145727 AB028075	X92489 X94449 AC079890 AF211193 X96681 X94375 X95193 AF145726 AF145731 AJ005820 D26573 AB028077 D26576 AB028076 AB028076 AB028076 AB028076 AB028076	AB028073 AF184278
BAB41025.1 BAA89008.1 AAB81683.1 AAB81682.1 BAB41018.1 CAA31855.1		CAA63222.1 CAA64221.1 AAK31270.1 AAF19980.1 CAA65456.2 CAA64152.1 CAA64491.1 AAD37605.1 CAA067128.1 CAA06717.1 BAA03622.1 BAA03462.1 BAA93462.1 BAA93466.1 BAA93466.1 BAA93466.1	BAA93461.1 AAF01765.1

SEQ ID NO. 2397

		503 muil		
Zea mays Zea mays Oryza sativa Oryza sativa	Oryza sativa Dianthus caryophyllus Daucus carota Daucus carota Malus sp. Matus x domestica Matthiola incana Perilla frutescens Callistephus chinensis Torenia fournieri Vitis vinifera Ipomoea batatas Ipomoea purpurea	Ipomoea batatas Forsythia x intermedia 60 Oryza sativa Nicotiana tabacum Mesembryanthemum crystallinum		
AF263457 AF067400 AP001168 AF067401 2398	AB026295 U82432 AF184273 AF117269 AF026058 AB003779 AB044091 X75966 AB023786	AB023787 Y12489 Y07955 Y07955 AJ299252 AJ299252	AF071893 AB036883 AB037183 AF274033 AJ251250 AJ251249	AF211527 AP002526 AF193803 AB023482 AF057373 AF211531 AF211530 AF253971
	BAA81862.1 AAB39995.1 AAD56580.1 AAD26205.1 AAB82287.1 BAA20143.1 AAB6560.1 BAB21477.1 CAA53580.1 BAA75305.1		AAC24587.1 AAC24587.1 BAB16083.1 BAB03248.1 AAF76898.1 CAB96900.1 CAB96899.1	AAG43545.1 BAA99376.1 BAF23899.1 BAA78738.1 AAG62619.1 AAG43549.1 AAG43548.1
Glycine max Phaseolus vulgaris Glycine max Zea mays Zea mays Hordeum vulgare	Hordeum vulgare Hordeum vulgare Glycine max Chlamydomonas reinhardtii Volvox carteri Chlorella vulgaris Nicotiana tabacum Spinacia oleracea Agrostemma githago Zea mays Zea mays	Agrostemma githago Agrostemma githago Oryza sativa Oryza sativa Glycine max Cichorium intybus Chlorella vulgaris	Zea mays Zea mays Avena strigosa Nicotiana plumbaginifolia Hordeum pusillum Hordeum stenostachys	Zea mays Zea mays Zea mays Solanum brevidens
U13987 X53603 L23854 U20450 AF153448	X57645 X57845 X60173 AF203033 X64136 U39931 U39930 X06134 U08029 U64308 M27492	U64310 U64309 X15820 X15819 L23853 X84102	X64446 AF077372 L40147 S61885 L40151 L40153	2390 AF239818 AF239817 AF239816 2395 U30304
AAA96813.1 CAA37672.1 AAA96727.1 AAA62316.1 AAD38068.1		AAB39555.1 AAB39554.1 CAA33819.1 CAA33817.1 AAA33998.1 CAA58908.1	CRA45776.1 RAD17694.1 RAR96242.1 RAB20155.1 RAR96245.1 RAR96245.1	SEQ ID NO. AAG36871.1 AAG36869.1 SEQ ID NO. AAC49600.1

	Populus balsamifera subsp.	•	Eucalyptus globulus	Eucalyptus globulus	Nicotiana tabacum			Mesembryanthemum crystalli	Spinacia oleracea	Oryza sativa	Nicotiana tabacum	Mesembryanthemum crystalli	Spinacia oleracea	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Solanum tuberosum	Pisum sativum	Lycopersicon esculentum	Oryza sativa	ltii	Sorghum bicolor	Sorghum bicolor	Oryza sativa	Oryza sativa	Oryza sativa	Glycine max	Zea mays	Nicotiana tabacum		Mesembryanthemum crystallinum			cosens.	Brassica rapa subsp. pekinensis	Triticum aestivum	Vicia sativa	Vicia sativa	Glycine max	Lotus japonicus	Glycyrrhiza echinata
AP000364	AJ130841		AF168778	AF168779	AF060180		2402	Z30329	230330	AP002816	X71057	Z30333	Z30332	AB042714	AB042715	06606X	M92989	AF143505	AP002481	X97980	Y12464	Y12465	AB011968	AB011967	AF004947	AF128443	AE141378	D26602	X10036	230331		2403	AJZ38402	AY029178	AF123609	AF092917	AF030260	AF022457	AB024931	AB023636
BAA81777.1	CAA10217.1	trichocarpa	AAD50441.1	AAD50442.1	AAC15067.1		SEQ ID NO. 2	CAB82852.1	CAA82991.1	BAB03409.1	CAA50374.1	CAA82994.1	CAA82993.1	BAB18104.1	BAB18105.1	CAA62476.1	AAA50304.1	AAF66637.1	BAA96593.1	CAA66616.1	CAA73067.1	CAA73068.1	BAA83689.1	BAA83688.1	AAB62693.1	AAD23582.1	AAF22219.1	BAA05649.1	CAA71142.1	CAA82992.1			CAB41474.1	AAK31592.1	AAG17470.1	AAG33645.1	AAD10204.1	AAB94586.1	BAA93632.1	BAA76380.1
		Populus tremuloides	Nicotiana tabacum	Populus balsamifera subsp.	•	Mesembryanthemum crystallinum	Populus balsamifera subsp.	4	Pinus taeda	Zee mays	Medicado sativa subsp. sativa	•	Nicotiana tabacum	Populus tomentosa	Orvza sativa	Nicotiana tabacum	Nicotiana tabacum	Petroselinum crispum		Petroselinum crispum				Populus balsamifera subsp.		Populus balsamifera subsp.	•	Zea mays	Nicotiana tabacum	~	Populus alba x Populus		Zinnia elegans	Eucalyptus globulus	Nicotiana tabacum	Eucalyptus globulus	Stellaria longipes	Oryza sativa	Citrus natsudaidai	Populus kitakamiensis
	2400	027116	062735	AJ224894		AF053553	AJ223621		AF036095	A.T242980	1120736	2.54233	282982	AF240466	AB023482	1162736	1138612	254183	AF022775	M69184	Z33878	AJ223620		AJ224896		AJ224895		AJ242981	062734	X12228	AF327458		013151	AF168780	256282	AF046122	L22203	AP000364	AB035144	AB000408
	SEO ID NO. 2	AAA80651.1	AAC49915.1	CAA12198.1	trichocarpa	AAC08395.1	CAA11496.1	trichocarpa	APD02050.1	L 07 L 24 L	1.051050A4	ר פאפטפמער	CAR05369.1	AAF44689.1	FA78733 1	1.0000 Jag	1 2 2 6 5 7 4 4	1.04000447	1 1500034.4	AAA33851.1	CAB83943.1	CAA11495.1	trichocarpa	CAA12200.1	trichocarpa	CAA12199.1	trichocarpa	CAB45150.1	AAC49914.1	CAA72911.1	AAK16714.1	glandulosa	AAA59389.1	AAD50443.1	CAA91228.1	AAC26191.1	AAB61680.1	BAA81774.1	BAA88234.1	BAA19102.1

Tho:	505
Solanum commersonii Hordeum vulgare Betula pendula Betula pendula Physcomitrella patens Physcomitrella patens Malus x domestica Ceratopteris richardii Dendrobium grex Madame Pisum sativum Nicotiana sylvestris Eucalyptus globulus Eucalyptus globulus Eucalyptus globulus Brassica oleracea Nicotiana sylvestris	Sinapis alba Glycine max Alycine max Glycine max Glycine max Alycine max Sea mays Alopecurus myosuroides Alopecurus myosuroides
AF002666 AJ249144 X99655 X99653 AF150931 U78948 D89671 AF198175 AJ279089 AF201298 AJ279089 AF306349 AF305696 AF305696 AF305696	AF109403 2405 AF243368 AF23928 AF243363 AF243362 AF243362 AF243372 AF243374 AF243374 AF243375 AF243376 AF243378 AF243367 AF244694 AJ010448
AAB65161.1 CAB97352.1 CAA67969.1 CAA67967.1 AAG09136.1 AAC83170.1 BAA25246.1 AAF13261.1 CAC37031.1 AAD39037.1 AAG30923.1 AAG30923.1 AAG30923.1 AAG24909.1	CAA67968.1 AAD20329.1 SEQ ID NO. AAG34803.1 AAG34801.1 AAG34801.1 AAG34801.1 AAG34807.1 AAG34804.1 AAG34804.1 AAG34806.1 AAG34809.1 AAG34809.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34802.1 AAG34802.1
Glycyrhiza echinata Nepeta racemosa Pisum sativum Pisum sativum Pisum sativum Pisum sativum Glycyrrhiza echinata Beta vulgaris Trifolium pratense Glycine max Lens culinaris Lotus japonicus Vigna radiata Torenia hybrida Glycine max Vigna radiata Glycine max Tifolium pratense	Glycine max Vigna radiata Vigna radiata Vigna radiata Zea mays Oryza sativa Oryza sativa Hordeum vulgare Lolium temulentum Zea mays Triticum aestivum Zea mays Lolium temulentum Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Malus x domestica Oryza sativa Oryza sativa
AB022732 Y09424 U29333 AF175278 AB028151 Z49263 AB001379 AF195810 AF195804 AF195809 AF195809 AF195809 AF195808	AF195818 AF195807 AF195806 AF195806 AF112149 U91964 AJ249146 AJ249146 AF035378 AF035378 AF035379 AF035379 AF058697 AB003325 AF125698 AF058698 AF058698 AF058698 AF058698
BAA74465.1 CAA70576.1 AAC49188.2 AAC9208.1 BAA84071.1 CAA89260.1 BAA2422.1 AAF34531.1 AAF34531.1 AAF34529.1 AAF34529.1 AAF34529.1 AAF34529.1	

Citrus unshiu Vicia faba Craterostigma plantagineum Lycopersicon esculentum Pisum sativum Tulipa gesneriana Tulipa gesneriana Medicago truncatula	Medicago sativa Glycine max Glycine max Daucus carota Alnus glutinosa Daucus carota Pisum sativum Medicago truncatula Lycopersicon esculentum	Citrus unshiu Lycopersicon esculentum Solanum tuberosum Gossypium hirsutum Solanum tuberosum Pisum sativum Pyrus pyrifolia Chenopodium rubrum	Saccharum officinarum Zea mays Zea mays Oryza sativa Oryza sativa Triticum aestivum	Pisum sativum Hordeum vulgare Zea mays Oryza sativa Oryza sativa Hordeum vulgare Triticum aestivum
AB025778 X69773 AJ132000 AJ011319 AJ012080 X96938 X131943	AF049487 AF030231 Y16091 AB029401 X92378 Y16090 X75332 AF079851 AJ131964 L19762	AB022092 AJ011535 U24087 U73588 U24088 AJ001071 AB045710 X82504	AF263384 X02382 X02400 X64770 Z15028 AJ001117	AJ311496 Y15802 L33244 X59046 L03366 X69931 AJ000153
BAA88981.1 CAA49428.1 CAB38022.1 CAA09593.1 CAA65639.1 CAA65640.1	AAC17867.1 AAC39323.1 CAA76057.1 BAA89049.1 CAA63122.1 CAA53081.1 AAC28107.1 CAA53081.1 AAC31106.1	BAA88905.1 CAA09681.1 AAA97571.1 AAD28641.1 AAA97572.1 CAA04512.1 BAB20799.1	CAA2629.1 CAA2629.1 CAA26247.1 CAA46017.1 CAA78747.1 CAA04543.1	CACA46/01.1 CAC32462.1 CAA75793.1 AAA33515.1 CAA41774.1 AAC41682.1 CAA49551.1 CAA03935.1
Zea mays Zea mays Glycine max Glycine max Solanum tuberosum Carica papaya Zea mays	Zea mays Picea mariana Gossypium hirsutum Suaeda maritima Cichorium intybus x Cichorium Petunia x hybrida Lavatera thuringiaca	Zea mays Oryza sativa Fagus sylvatica Lycopersicon esculentum Lycopersicon esculentum	Glycine max Picea glauca Glycine soja Glycine soja	Nicotiana sylvestris Vigna radiata Pisum sativum Spinacia oleracea Citrus unshiu
AF244706 AF244701 AF243371 Y10820 J03679 AJ000923 AF244693	AE244704 AE159229 AE321437 AJ296343 AJ296343 AJ296343 AF210049 AF210049	2409 AB042270 AC083945 AJ298990 U41103 U47279 AF022727	2410 AE004810 L47607 U38246 U38247	2413 D16247 AF156667 AF271892 X99937 2415 AB022091
AAG34849.1 AAG34844.1 AAG34806.1 CAA71784.1 AAA68430.1 CAA04391.1 AAG34836.1		SEQ ID NO. 2 BAB20583.1 AAK13126.1 CAC09578.1 AAA85479.1 AAB39386.1		SEQ ID NO. 2 BAA03763.1 AAF75791.1 CAA68193.1 SEQ ID NO. 3 BAA88904.1

Sorghum bicolor Lycopersicon esculentum Vitis labrusca x Vitis vini	Vitis vinifera	Vitis vinifera Vi+1s vinifera		Petunia x hybrida	Vitis labrusca x Vitis vin:	Dorotheanthus bellidiformi:	Vitis vinifera	Vitis vinifera	Vitis	Vitis		•	Perilla frutescens		Phaseolus lunatus	Ipomoea purpurea	•		Lycopersicon esculentum			Lycopersicon esculentum			Nicotiana	Nicotiana		Lycopersicon esculentum		Nicotiana	Nicotiana tabacum	Petunia	Petunia	Petunia	Petunia	Petunia	5 Petunia x hybrida	•
AF199453 X85138	AB047099	AB047097	AB047093	AB027454	AB047091	X18871	AF000372	AB047092	AB047098	AB047096	AB047094	AF000371	AB002818	AB038248	AE101972	AF028237		2420	x95296	AF161711	Z13996	X99210	AJ006292	Z13997	AB028650	AB028652	AB028649	X98308	AF122054	AB028651	072762	AF146706	AF146702	AF146704	AF146703	AF146707	AF146705	
AAF17077.1 CAAS9450.1	BAB41017.1 BAB41026.1	BAB41024.1	BAB41022.1	1.020.1 1.020.1	BAR41018.1	CAR56231.1	AAB81683.1	BAB41019.1	BAB41025.1	BAB41023.1	BAB41021.1	AAB81682.1	RAA19659.1	BBB0787.1	PAD04166.1	APB6473.1	TO COORD	SEO TO NO.		1.5205044.	CAA78386.1	CAA67600.1	CAR43399.1	CAA78387.1	BAA88222.1	BAA88224.1	BAA88221.1	CAA66952.1	AAG08962.1	BAA88223.1	AAR41101.1	AAF66731.1	DAF66727.1	AAF66729.1	AAF66728.1	AAF66732.1	AAF66730.1	
Craterostigma plantagineum Beta vulgaris	Hordeum vulgare		Solanum tuberosum	Solanum tuberosum	Nicotiana tabacum	Daucus carota	Chenopodium rubrum	Pisum sativum	Pisum sativum	Zea mays	Vicia faba	Triticum aestivum		Phaseolus vulgaris	Vicia faba	Daucus carota	Daucus carota	Daucus carota	Daucus carota	Triticum aestivum	Brassica oleracea				Petunia x nybrida	Zea mays	Citrus unsniu	Verbena x nybrida	Perilla irutescens	Brassica napus	Perilla frutescens	_				๙	ىد	Nicotiana tabacum
AJ131999 X81974	X66728	2416	222645	221486	X81834	X69321	X81792	AF063246	X85327	AF043346	235162	AF030420	X75353	092438	249831	X75351	X18707	x75352	X18706	AF030421	AF274299		2417	AF190634	AB027455	L34847	AB033758	AB013598	AB013596	AF287143	AB013597	AB031274	U32643	AF346432	AF127218	U32644	D85186	AF346431
CAB38021.1	CAR47264.1		SEQ 10 NO. 21	CAA79676.1	CAB57428.1	CAA49162.1	CAA57389.1	AAC17166.1	CAA59677.1	AAD02263.1	CAA84526.1	AAC96065.1	CAA53099.1	AAB68679.1	CAA89992.1	CAA53097.1	CAA77267.1	CAA53098.1	CAA77266.1		AAG36943.1		SEO ID NO. 2	AAE61647.1	BAA89009.1	AAA59054.1	BAA93039.1	BAA36423.1	BAA36421.1	AAF98390.1	BAA36422.1	BAA83484.1	AAB36652.1	AAK28304.1	AAD21086.1	AAB36653.1	BAA12737.1	AAK28303.1

				sative	, -												4	50	8																					
Glycine max		Nicotiana tabacum	Capsicum annuum	900		Cloer arrections Objects and marie	CUTOTETTA ARTRATES		and the state of t		Nicotiana tabacum				Nicotiana tabacum					Pisum sativum		•	Pimpinella brachycarpa	Elaeis guineensis	Petunia x hybrida	Petunia x hybrida	Nicotiana tabacum	Oryza sativa	Oryza sativa	Petunia x hybrida	Sinapis alba	Petunia x hybrida	Zea mays	Petunia x hybrida	Sorghum bicolor	Gnetum parvifolium	Malus x domestica	Pinus radiata	Capsicum annuum	•
U30475	2422	AF117339	AJ012165	ABU1/480	AE 336134	AJ006095	ABUULO84		2423	X79138	X/9141	X / 9008	X79009	X79136	X79140	,	2431	011/16	M18250	AF115574		2442	AF082531	AF207699	AF335239	AF335238	X76188	AB003328	AF141965	AF335244	U25696	AF335240	AF112148	AF335241	U49734	AB022665	AJ000760	076726	AF129875	
AAA74017.1		AAD17230.1	CAA09935.1	BAA33755.2	AAK13322.1	CAA06853.1	BAA57906.1			CAA55739.1	CAA55/42.1	CAA55641.1	CAA55642.1	CAA55737.1	CAA55741.1	;		AAB18669.1	AAA33662.1	AAD25355.1			AAC33475.1	AAF19968.1	AAK21252.1	AAK21251.1	CAA53782.1	BAA81886.1	AAD38369.1	AAK21257.1	AAB41526.1	AAK21253.1	AAG43199.1	AAK21254.1	AAB50187.1	BAA85630.1	CAA04322 1	AAB58907.1	AAF22138 1	
	Petunia axillaris		Glycine max	Zinnia elegans	Daucus carota	Oryza sativa	Daucus carota	Glycine max	Daucus carota	Physcomitrella patens	Lycopersicon esculentum	Physcomitrella patens	Physcomitrella patens		Daucus carota	Daucus carota	Physcomitrella patens	Oryza sativa	Physcomitrella patens		Physcomitrella patens		Prunus armeniaca			Dhyscomitrella Datens	Craterostima plantagineum	Vinta elegans	Pimpinella brachycarba			2	Oryge cetive	ָ ֓֞֝֝֓֞֝֝֓֓֞֝֝֓֓֓֞֝֡֓֡֓֓֡֓֡֓֡֓֡֓֡֓֓֡֓֡֓֡֓֡	1	Oryza saciva	Oryza sachva	Oryza saciva	סייייי מסרייים	Glycine max
AF146709	AF146708	2421	AF184277	AB042769	D26578	AF145728	D26576	AF184278	D26574	AB028077	X94947	AB028073	AB028076	AB028078	D26575	D26573	AB028079	AF145729	AB028072	AB042762	AB028080	DE145730	AF139497	1550554V	V61212	151515 15000004	ABUZBUIJ	AJ003620	00/75005	X05102	20100	3054 3054	12137 tar	AE 140/01	AJUUDBSS	Xyeeki	ACU / 9890	AF211193	AF145/2/	X92489
AAF66734.1	AAF66733.1	SEO TO NO. 2	1764.2	BAB18171.1	BAA21017.1	AAD37697.1		AAE01765.1	BAA05623.1	BAA93465.1	CAA64417.1	RAB93461 1	BD 93464.1	BAB93466.1	BAA05624.1	BAA05622.1	BAA93467.1	AAD37698.1	PA 9 3 4 60 . 1	BAR18164.1	1.10101000	ו סטארגתייי	1.000100444	AADSOL44.1	AAA63766.2	CAMBEGGG . 1	BAA93463.1	CAA06/1/.1	BAB161/0.1	CAM04221.1	CAMOSTO		AAD3/693.1	AAD3//00.1	CAA06/28.1	CAA65456.2	AAK31270.1	AAF19980.1	AAD37696.1	CAA63222.1

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Spinacia oleracea Spirodela polyrrhiza Glycine max Glycine max Glycine max Triticum aestivum Zea mays Glycine max Spinacia oleracea Medicago truncatula Petroselinum crispum Lycopersicon esculentum Lycopersicon esculentum Spinacia oleracea Oryza sativa Spinacia oleracea Medicago sativa Armoracia rusticana Spinacia oleracea Oryza sativa Nicotiana tabacum Raphanus sativa Nicotiana tabacum Raphanus sativa Oryza sativa	Nicotiana tabacum Oryza sativa Spinacia oleracea Asparagus officinalis Oryza sativa Arachis hypogaea Trifolium repens Spinacia oleracea Linum usitatissimum Oryza sativa Mercurialis annua Oryza sativa
AF244921 222920 U51191 U51192 X85230 AJ401276 AJ401276 AF244924 L13654 L13654 L13654 L13654 AP001383 AF244924 AP01383 AF244924 AP01383 AF244924 AP01383 AF247700 AP001383 AF247700 AP001383 AF247700 AP001386 D11337 AF149277 L36158	D42065 AP002482 Y10465 AB042103 D16442 M37637 AJ011939 Y10462 U59284 AF014468 X91232 AF014470
AAF63024.1 CAA80502.1 AAD11481.1 AAD11482.1 CAC21393.1 AAB97734.1 CAA71495.1 AAB48986.1 AAB48986.1 AAA65637.1 AAA65636.1 AAA65636.1 AAA65630.1 CAA71490.1 CAA71490.1 BAA92500.1 CAA71490.1 CAA71490.1 BAA9250.1 BAA9240.1 BAA9240.1 BAA9242.1 BAA92422.1 BAA92422.1 BAA92422.1 BAA91950.1	BAA07664.1 BAA96643.1 CAA71491.1 BAA94962.1 BAA03911.1 AAA32676.1 CAA09881.1 CAA09881.1 CAA09881.1 CAA09881.1 AAB02926.1 AAC49819.1 CAA62615.1
Oryza sativa Pinus resinosa Oryza sativa Petunia x hybrida Picea mariana Picea mariana Picea mariana Oryza sativa Zea mays Pinus radiata Oryza sativa Capsicum annuum Hordeum vulgare Zea mays Malus x domestica Triticum aestivum Oryza sativa Solanum tuberosum subsp. Zea mays Euphorbia esula Chlamydomonas reinhardtii	Contamydoniolas retiniaturios Petroselinum crispum Populus deltoides Nicotiana tabacum Cicer arietinum Hordeum vulgare Spinacia oleracea Glycine max Glycine max Scutellaria baicalensis Oryza sativa
U78782 AF006210 AJ011675 AF335236 U69483 U69482 U46582 U46582 U46397 AF0021458 AF0021458 AF0021534 AJ249145 AF126153 AF126551 X68678 AF242312 AF242312 AF242312 AF00559 AP000559	AF008568 M62757 U27348 AB006187 X85252 D49655 2446 Y16778 U51193 U51193 U51194 AB024437
	AAB71833.1 AAA33858.1 AAA73483.1 BAA21726.1 CAA59508.1 BAA08531.1 SEQ ID NO. CAA76376.1 AAD11483.1 AAD11484.1 BAA7387.1

Oryza sativa Oryza sativa Sandersonia aurantiaca	Oryza sativa Ipomoea batatas	Vicia sativa	Hemerocallis hybrid cultiv	Sandersonia aurantiaca	Oryza sativa	Oryza sativa	Carica papaya	Phalaenopsis sp. SM9108			Oryza sativa	Oryza sativa Orwza sativa	ana tabacum	510			Nicotiana tabacum	Petroselinum crispum	Solanum tuberosum	Dunaliella bioculata	Nicotiana tabacum	Solanum tuberosum		Spinacia oleracea	ر ت	Medicago sativa subsp. sativa	Mesembryanthemum crystallnum	Petroselinum crispum	Solanum tuberosum	Petroselinum crispum	Triticum aestivum	Triticum aestivum	Nicotiana tabacum	Nicotiana tabacum	Triticum aestivum
AB004648 X80876 AF133838	AB004819 AF242372	234895	012637	AF133839	D/6415	AF099203	AJ131995	AE'089849 U34747		2454	AL117264	AP001552	U08285	!	2455	AF231351	X99405	AF012861	AJ010712	AJ132346	AJ001772	X83923	AJ000184	AJ000182	AJ000183	U18238	AF097663	AF012863	X74421	AF012862	AB029454	AB029455	AJ001770	AJ001769	AB029456
BAA83472.1 CAA56844.1 AAD28476.1	BAA83473.1 AAK27968.1	CAA84378.1	AAC35211.1	AAD28477.1	BAA11170.1	AAD20453.1	CAB38314.1	AAD53012.1 AAB37233.1			CAB55395.1	BAA93021.1	AAA17740.1			AAF87216.1	CAA67782.1	AAB69317.1	CAB52708.1	CAB52685.1	CAA04994.1	CAA58775.1	CAA03941.1	CAA03939.1	CAA03940.1	AAB41552.1	AAD11426.1	AAB69319.1	CAA52442.1	AAB69318.1	BAA97662.1	BAA97663.1	CAA04993.1	CAA04992.1	BAA97664.1
Stylosanthes humilis Spinacia oleracea	Hordenm vilgare	Hordeum vulgare	Cucumis sativus	Cucumis sativus	Oryza sativa	Solanum tuberosum	æ	Polytomella sp. 'Pringsheim	Cichorium intybus				Triticum aestivum		Phaseolus vulgaris	Zea mays	Lycopersicon esculentum	Lycopersicon esculentum	Solanum tuberosum	Zea mavs	Phaseolus vulgaris	Phaseolus vulgaris	Phaseolus vulgaris	Dianthus caryophyllus	Vicia sativa	Nicotiana tabacum	Pseudotsuga menziesii		Pisum sativum	Zea mays	Zea mavs	Ricinus communis		Hordeum vulgare	Hordeum vulgare
L77080 X10470	2447	D26105	D26106	AB037113	AB007120	AJ005802	AF332962	AF332963	AF101426		2448	M95747	M95746	2449	299954	AB020961	A.T003137	AF172856	A.T245924	AF019147	Z99952	AJ224766	U52970	017135	X75749	299173	041902	X82011	1144947	AF019145	AF019146	AF050756	2,97023	297021	U94591
AAB67737.1 CAA71496.1	SEQ ID NO. 2	BAB/188/.1	BAA05102.1	BAB20760.1	BAA22284.1	CAA06705.1	AAK16728.1	AAK16729.1	AAC84139.1		SEO ID NO. 2	AAA16209.1	AAA74724.1	SEO ID NO. 2		BABABAB 1	1.00000047	1.16000000	CAR43515 1	APBR8263 1	CAB17074.1	CAA12118.1	AAB68374.1	AAA79915.1	CAA53377.1	CAB16317.1	PAC49455.1	CAB57538.1	1 9181816 1	ABB70820.2	DERRO62 1	1.30200AA	C 96096047	CAB09697.1	AAD10337.1

Lithospermum erythrornızon Glycine max		Cucumis sativus	S822/2 /gene≕"3-hydroxy-3-methylglutaryl coenzy	Hevea brasiliensis	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum	Solanum tuberosum		anitao como ditta	Frascia Oryza sacrys		5 unsoradin minelos					02 Malus x domestica	Solanum tuberosum	75 Hordeum vulgare var. distichum	33 Oryza sativa			Nicotiana	58 Medicago sativa	Zea mays	Lycopersicon	Lycopersicon	Lycopersicon	44 Lycopersicon peruvianum	Glycine max	Glycine max		83 Nicotiana tabacum
X74783	AF196964	D63389	S82272 /gene="3	This	1.34825	134827	134823	L34826	L34828	L34829		2459	XISSOI		796964	AF034947	AF093629	AF149116		AF220202	AJ225172	AE009675	AF022733		2462	AB014484	AF235958	X82943	x67599	X67600	X67601	AF20854	246956	Z46952	X55347	AB014483
CAA52787.1	AAG43469.1	BAA09705.1	AAB47161.1	reductase,.	AAA33333.1	par37434.1	ppC37431.1	ABC37433.1	AAC37435.1	AAC37436.1			CAA33932.1			CAA855562.1	AMB00010.1	AAC/0101.1	tromploides	AAF27918.1	Caa12415.1	AAC50012.1	AAB82136.1		SEO ID NO.	BAA83711.1	AAE37579.1	CAA58117.1	CAN47868.1	CAA47869.1	CAA47870.1	AAF74563.1	CAA87080.1	CAA87076.1	CAA39034.1	BAA83710.1
Cucurbita pepo	Betula pendula	Triticum destroum Glycine max		Raphanus sativus	Raphanus sativus	Gossypium hirsutum	Catharanthus roseus	Solanum tuberosum	Nicotiana tabacum	Zea mays	Nicotiana syrvestras	Capsicum annuum Solanum tuberosum	Solanum tuberosum	Lycopersicon esculentum	Camptotheca acuminata	Oryza sativa	Solanum tuberosum	Camptotheca acuminata	Artemisia annua	Lycopersicon esculentum	Artemisia annua	Hevea brasiliensis	Artemisia annua	Oryza sativa	Hevea brasiliensis	Oryza saciva	GOSSYPTUM INTEGRACEM	Tagetes erecta	Tagetes erecta	Hevea brasiliensis	Hevea brasiliensis	Oryza saciva	Camprorised acamaridae	MOEUS ALDA	Jycopersicon esculentum	Hevea brasiliensis
AF260736	AJ279688	AB011441 A.T004900		2456 X68652	X68651	AF038046	M96068	U51985	060452	X09238		AF110383	000000	1168072	072145	095816	AB041031	U72146	AF142473	M63642	014625	M74798	U14624	043961	M74800	268504	AF038045	AF034760	AF034761	X54659	X54657	AF110382	L10390	043/11	AE096838	X54658
AAG23802.1	CAB66330.1	BAA82155.1		SEQ ID NO. 2	CAA48610.1	AAC05089.1	AAA33108.1	AAB52551.1	AAB87727.1	CAA70440.1	CAA45181.1	AAD28179.1	AMB32332.1	BAA93631.1	AAB69726.1		BAB20771.1	AAB69727.1	AAD47596.1	AAA34169.1	AAA68966.1	AAA33358.1	AAA68965.1	AAD08820.1	AAA33360.1	CAA92821.1	AAC05088.1	AAC15475.1	AAC15476.1	CAA38469.1	CAA38467.1	AAD38873.1	AAA33040.1	AAD03789.1	AAC72378.1	AABU4043.1 CAA38468.1

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	705 move	Digital Cottiens	Pisum sacivum	Oryza saciva	Zea mays	Fishin sativan	Oryza sativa			Dienm sativnm	Figure 4::4	sotanmii cuperosmii			Oryza sativa	ı		0.111	כמכמוודם פשרדאמם	Fisum sacivum	Daucus carota	Vigna radiata	Pinus mugo	Triticum aestivum	Marchantia naleacea	Marchae continue	Avend Sacrava	Pycopersicon escutentum		Chlamydomonas reinhardtii	Chloroplast Vigna radiata	Lycopersicon esculentum	Pinus mugo	Lycopersicon esculentum	Pinus taeda		Lycopersicon esculentum	Pinus strobus	Orvza sativa	Modicaco truncatula	Medicago crancacura		Cucumis sativus
7270	14 / 4 14 / 4 15 / 4 16 / 4 17 / 4 17 / 4 18	AE203437	AB048/13	AP001168	AF067400	AB048/14	AF067401		2475	675004	CP17C7	78287		2479	AF039531		2010	200014	ມວດທອວ	X63060	AF207691	AF279251	S63824	x76532	100000	AB00/341	A1.7007	AF243522	AF027356	U36752	AF126871	AF243520	563825	AF243524	AF027350	AF243523	AF243521	AF027355	AF093628	30000	C0/777	L.22766	AB024081
		AAGI3663.1	BAB39155.1	BAA90816.1	AAC98090.1	BAB39156.1	AAC98091.1		ON OT ORS		CARASODO.I	AAB02720.1		SEQ ID NO.	AAB97366.1			٠,	BAAZIU89.1	CAA44786.1	AAF20949.1	AAF89208.1	AAC60560.2	Caa54042 1	ו פטטופגיים	BAA31093.1	CAA34913.1	AAF82475.1	AAB86734.1	AAB04951.1	AAD20020.1	AAF82471.1	AAC60561.2	AAF82474.1	AAB86728.1	AAE82473.1	AAF82472.1	AAB86733.1	1 00187744	1.0010164	AABUSZUS.1	AAB05206.1	BAA83744.1
																				sativum									li														
Glycine max	Pisum sativum	Glycine max	Glycine max	Pisum sativum			Cucurbita sp.	, d	3	Zea mays	Zea mays	Zea mays	Zea mays	Svem ee2				Solanum tuberosum	Oryza sativa	Pisum	Brassica nanus	Description in property		Secare cereare	Brassica napus	Canavalia lineata	Avicennia marina	Solanum tuberosum	Pseudotsuga menziesii	Glycine max			entites estima				Dinne radiata		Oryza saczya	Raphanus sativus	Oryza sativa	Oryza sativa	entites canno
Z46953	AJ010644	246955	246951	AJ010643		2463	V70868	7,000	7000/Y	212114	L21007	1,21006	1.21008	711516	01170	CTTZTZ	227165	U46136	AP001389	1121139	000000	0000000	M55599	268903	227222	AF030515	AB049590	1146137	2.49766	A LC LOT A	01031000	73767	71200004	01000014	A06420A	0970	7400	AFUULLSU	ABUUTES /	AF052690	AB001886	AB001882	0001000
CAA87077.1	CAA09301.1	CAA87079.1	CAA87075.1	CAA09300.1		SEO TO NO. 2		CAR50210.1	CAASUZI/.I	CAA78100.1	AAA33450.1	1 63452 1	1 1575544	1.100.000	T.CF0//AH)	CAA78101.1	CAA81689.1	AAB39827.1	BAA92724.1	ו ששנששעת	1.000000	AAA32980.1	AAA32979.1	CAA93139.1	CAA81736.1	AAC68501.1	BAB16318.1	1 8 C 8 C E A A	ר אבפסמיני	1.00000440	•			BAA63440.1	CAB33493.1		٠.	AAD22518.1	BAA33205.1	AAC35496.1	BAA33204.1	BAA33200.1	

BAA25197.1 AB012138 Lycopersicon esculentum Lla AAD43972.1 AF141879 Oryza sativa	2495	AAB63262.1 U82815 Zea mays nnF68624 1 nF254072 Zea mays	AF026917 Zea	AAF68625.1 AF254073 Zea mays		2501		AF.1365/9	Arzą6z66 Lycopersicon	.1 AF065444	AF133267 Thlaspi caeru	AF246266 Lycopersicon	AAD30549.1 AF136580 Lycopersicon esculentum		2	230329	AB042/14	ABU42/15 Chiamydomonas	BAA83689.1 ABULLY08	BAAA3588.1 ABULL96/ OLYZA	Y12464	AP002482	249233		AB011670	AAF06970.1 AF162662 Kalanchoe	AF162661	CAA39936.1 X56599	AP001168 Oryza	AAB62693.1 AF004947 Oryza sativa		BAA05649.1 D26602 Nicotiana tabacum	AAC25423.1 AF072908 Nicotiana tabacum	
Selaginella lepidophylla		Brassica napus	Pisum sativum Orvza sativa		Oryza sativa	Oryza sativa	Phaseolus vulgaris	Hordeum vulgare	Ipomoea nil	Linum usitatissimum	Beta vulgaris	Beta vulgaris	Beta vulgaris			Oryza sativa	Oryza sativa	Oryza sativa		Nicotiana plumbaginifolia	Pinus caribaea	Pinus radiaca	Hordenm vulgare	Atriplex lentiformis		Triticum aestivum	anthemum	Triticum aestivum	Pisum sativum	Diam sativnm	Triticum aestivum	Pisum sativum	Solanum tuberosum	
S																																		
2487 U96736 S	2489	1743	AJ311624	AF032975	AB010876	AF051156	AJ276491	Y15962	D45425	AF310960	AF310017	AF310018	AF310016	AJ222979	AF032974	AP003018	AP003020	AL117264	AB028454	AF132671	AF039201	AE049065	AE 0 / 2034	AB024338	M21962	M63223	M93041	X09917	AJ250834		M63224	A.1250832	AF067731	

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Oryza sativa	Beta procumbens	Oryza sativa	Oryza saciva Eleusine indica	Zea mays Hordeum vulgare	Zea mays	Zea mays Miscanthus sinensis	Avena sativa	Miscanthus sinensis	Prunus dulcis	Chlorella Vulgaris	Anomia phylltidia	Amemia phyliticians Betula pendula	Daucus carota	Hordeum vulgare	Eleusine indica		Nicotiana tabacum	Zea mays	Volvox carteri	Volvox carteri	Hordeum vulgare	Eleusine indica	Chlamydomonas reinhardtii	. Eleusine indica	Chloromonas sp. ANT3	Chloromonas sp. ANT1	Triticum aestivum	Oryza sativa	~		Oryza satıva
AP001800	2509 U79733	2510 211931	X91808 AF008122	X63178 X99623	U05258	X63177 A.1133709	X97446	AJ133710	X67162	D16504	012589	A09103 A.1279695	AX007250	AJ132399	AJ005598	AF008120	AB052822	X15/04	A13/04 1,24546	X12846	Y08490	AJ005599	M11447	AF008121	AF032877	AF032876	U76558	AF182523	M11448	X91806	X91807
BAA94516.1	SEQ ID NO. 3 AAB48305.1		CAA62918.1 AAC05719.1	CAA44863.1 CAA67942.1	AAA16225.1	CAR44862.1	CAA66075.1	CAB77672.1	CAA47635.1	BAA03955.1	AAA/9910.1	CAM4892/.1	AAG02564.1	CAA10663.1	CAA06618.1	AAC05717.1	BAB19779.1	CAA33734.1	DAA99438 1	CAA31326.1	CAA69724.1	CAA06619.1	AAA33095.1	AAC05718.1	AAB86648.1	AAB86649.1	AAD10486.1	AAG16905.1	AAA33098.1	CAA62916.1	CAA62917.1
																				Silued	2										
Solanum tuberosum	Hordeum vulgare Oryza sativa Brassica napus	Glycine max Nicotiana tabacum Glycine max	Nicotiana tabacum Oryza sativa	•	Chlamydomonas reinhardtii	Phaseolus coccineus	Spinacia Oletacea		Brassica oleracea			Brassica oleracea			Brassica oleracea	Ipomoea trifida				hadile	napus subsp. oleracea						Brassica raba	Brassica oleracea	Phaseolus vulgaris	Oryza sativa	Nicotiana tabacum
Solanum	Hordeum Oryza sa Brassica	79 43	U73938 Nicotiana tabacum AC084763 Oryza sativa		175385	90	X/by3Z Spinacia Oleracea	2508	2531 Brassica		Brassica	Brassica		73 Brassica	Brassica		70 Brassica	Brassica	Brassica	brassica napus	y brassica napus subap. Brassica oleracea	Brassica	Brassica	Brassica	Brassica	Brassica	61 Brassica		Phaseo		

Triticum aestivum Avena sativa Lycopersicon esculentum Petunia x hybrida Lycopersicon esculentum Petunia x hybrida Oryza sativa Glycine max Glycine max Nicotiana tabacum Oryza sativa Hordeum vulgare	Nicotiana tabacum Hordeum vulgare Oryza sativa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Lilium hybrid division I Nicotiana tabacum Oryza sativa Petunia x hybrida Glycine max	Glycine max Solanum tuberosum Lycopersicon esculentum Solanum berthaultii Oryza sativa Pisum sativum Spinacia oleracea Mesembryanthemum crystallinum Mesembryanthemum crystallinum Micotiana tabacum Spinacia oleracea Salvia columbariae Salvia columbariae Oryza sativa
AB044084 AJ133638 X99134 Z13997 X98308 Z13998 Y11415 AB029165 AB029162 AB029162 AB029162	AB028650 X70881 Y11414 AB028649 U72762 AB028651 AB058642 AE198499 AF198499 AF1352 Z13996	AB029160 X90990 AF143505 X97980 AP002481 M92989 Z30332 Z30333 Z30333 Z30333 Z30330 AF089099 AF089097
BAA96421.1 CAB40189.1 CAA67575.1 CAA78387.1 CAA78388.1 CAA72218.1 BAA81736.1 BAA81736.1 BAA81733.2 BAA8224.1	BAA8822.1 CAA50226.1 CAA72217.1 BAA88221.1 AAB41101.1 BAB40790.1 AAG28526.1 AAG28526.1 CAA72187.1 CAA78386.1	
Hordeum vulgare Zea mays Zea mays Oryza sativa Chlorella ellipsoidea Eucalyptus globulus subsp. Anemia phyllitidis Mesembryanthemum crystallinum Hordeum vulgare Zea mays	Zinnia elegans Pisum sativum Daucus carota Zea mays Picea mariana Oryza sativa	Oryza sativa Nicotiana tabacum Oryza sativa Adiantum raddianum Adiantum raddianum Secale cereale Secale cereale Solanum tuberosum Solanum tuberosum Solanum tuberosum Oryza sativa Hordeum vulgare Hordeum vulgare Lolium temulentum
U40042 X63176 M60171 AF030548 AB038515 U37794 X69184 AF097662 AJZ76012	D63137 X54845 U63927 L10633 2511 AF051209 AB018444 AB018443	2515 AP000616 AF211532 AP001080 2516 AF190304 AF190303 AF190301 AF190301 AF122051 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053 AF122053
AABO8791.1 CAA44861.1 AAB33518.1 AAB84298.1 BAA92148.1 AAB36609.1 bicostata CAA8928.1 AAD11425.1 CAB76917.1	BAA82638.1 CAA38614.1 AAB64308.1 AAA20186.1 SEQ ID NO. 2 AAC32114.1 SEQ ID NO. 2 BAA84780.1 BAA84779.1	SEQ ID NO. BAA85438.1 AAG43550.1 BAA90357.1 SEQ ID NO. AAF67053.1 AAF67052.1 AAF67052.1 AAF67050.1 AAG08950.1 AAG08950.1 AAG08950.1 AAG08950.1 AAG2860.1 AAG2860.1 AAG22863.1 CAA61021.1

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Oryza sativa Oryza sativa Hordeum vulgare Hordeum vulgare Barbula unguiculata Oryza sativa Atriplex lentiformis Triticum aestivum Oryza sativa Triticum aestivum Hordeum vulgare Hordeum vulgare Triticum aestivum Hordeum vulgare Pinus caribaea	Triticum aestivum Mesembryanthemum crystallinum Pinus radiata Pisum sativum Pisum sativum Triticum aestivum Fisum sativum Triticum aestivum Brassica napus	Zea mays Oryza sativa Vigna radiata Nicotiana tabacum Lycopersicon esculentum Hordeum vulgare Lycopersicon esculentum Pinus sylvestris Oryza sativa Brassica juncea Asarina barclaiana Zea mays Chlamydomonas reinhardtii
AE032976 AE141879 AE250935 AE250934 AB028454 AF072694 AF03223 AE032973 AE032973 AC1962 AC250936 U01963 AF250937 AF250937	Y09917 M93041 AF049065 AJ250834 AJ250833 Y09915 AJ311624 U21743	2524 250801 AF058796 AF139466 X64198 M17633 AF218305 J03558 X58514 X58514 X58514 X58514 X58519 U23189 U23188 AF195794 X63052
AAC04837.1 AAD43972.1 AAG00426.1 BAA86880.1 BAA25777.1 BAA34270.1 AAA34268.1 AAA34268.1 AAA34268.1 AAA34268.1 AAA34268.1 AAA34268.1 AAA34268.1 AAA34268.1	CAA71052.1 AAA33030.1 AAC05146.1 CAB65371.1 CAB65370.1 CAA71050.1 CAC34417.1	SEQ ID NO. CAA90681.1 AAC14566.1 AAD27878.1 CAA45523.1 AAR34140.1 AAR34186.1 CAA41404.1 CAA41405.1 AAC67558.1 CAA644702.1 AAG28464.1 AAG28464.1
Lycopersicon esculentum Salvia columbariae Salvia columbariae Lycopersicon esculentum Lycopersicon esculentum Salvia columbariae Salvia columbariae Lycopersicon esculentum Lycopersicon esculentum Lycopersicon sativa	g C	Pisum sativum Nicotiana plumbaginifolia Solanum tuberosum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Oryza sativa Triticum aestivum Hordeum vulgare Hordeum vulgare Triticum aestivum Oryza sativa
U89678 AF089100 AF089101 U89680 U89679 AF089102 AF089103 U89681 U89682 X15901 X15901	D10334 AB041773 U82330 AF187063 AF187062 AF086603 AP000616	2523 AJ250832 AF132671 AF132671 AF067731 AP003018 AP003020 AF032974 AB012138 AF032972 AF032971 AL117264 AF042489 AJ237942 AF250933 X93171 AJ237943 AF141880 AF141880
AAB93859.1 AAD50586.1 AAD50587.1 AAB93861.1 AAB93860.1 AAD50588.1 AAD50588.1 AAB93862.1 AAB93862.1 AAB93863.1 SEQ ID NO. 2	BAAO1181.1 BAAO1180.1 BAA94761.1 AAB68604.1 AAF23372.1 AAF23371.1 AAD41679.1 BAA85443.1	SEQ ID NO. CAB65369.1 AAF03355.1 AAC78470.1 BAB39965.1 BAB39980.1 AAC04835.1 BAAC5197.1 AAC04832.1 CAB555394.1 AAG00425.1 CAA63659.1 CAA63659.1 CAA63659.1 AAD43973.1

japonic			517	
Oryza sativa subsp. j Gossypium hirsutum	Lolium perenne Lolium perenne Triticum aestivum Triticum aestivum	Clarkia concinna Clarkia breweri Clarkia breweri Oenothera arizonica Clarkia breweri		Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum Linum usitatissimum
2530 AF030052 AF150630	2531 AY014277	2532 AF067602 U58314 AF067603 AF067604	2533 AP000836 2534 U15605 AJ009719 AJ009720 U73916 AF175388 AF175395 AF093642 AF093643 AF093643 AF093643 AF093643 AF093643	AF093647 AF093645 AJ310156 AJ310150 AF093641 UZ7081
SEQ ID NO. 2 AAC39333.1 AAD39534.2	SEQ ID NO. 2 AAG43043.1 AAG43044.1 CAA74331.1 CAA74330.1	SEQ ID NO. 3 AAD19839.1 AAC49395.1 AAD19840.1 AAD19841.1	SEQ ID NO. SEQ ID NO. AAA50763.1 AAG43546.1 CAA08797.1 CAA08798.1 AAB47618.1 AAB47618.1 AAG09951.1 AAG09951.1 AAG0955.1 AAD25966.1 AAD25966.1 AAD25975.1 AAD25975.1 AAD25977.1 AAD25977.1	AAD25974.1 AAD25972.1 CAC35331.1 CAC35323.1 AAD25968.1
Oryza sativa Polystichum munitum Sinapis alba	Sinapls alba Chlamydomonas moewusii Oryza sativa Solanum tuberosum Cryptomeria japonica	Rumex palustris Lemna gibba Oryza sativa Pinus sylvestris Prunus persica Lycopersicon esculentum	Glycine max Vigna radiata Gossypium hirsutum Petunia x hybrida Pisum sativum Vigna radiata Pinus palustris Peudotsuga menziesii Pseudotsuga menziesii Allium porrum Solanum tuberosum Solanum tuberosum Hyoscyamus niger Hyoscyamus niger Datura stramonium	Cupines rancostate Solanum tuberosum Hyoscyamus niger Hyoscyamus niger Datura stramonium
X13909 M34396 X16436	X15894 X54856 D00641 U21114 AB013728	AF16529 M12152 D00642 X14505 AF039598 M17558	X12980 AF279250 X54090 X04966 X57082 AF279249 U51632 Z49749 U89510 U89510 U89511 AJ292343 AJ245634 LZ04485 AB026545	X64566 AJ307584 D88156 AB026544 L20473 L20475
CAA32109.1 AAA68425.1 CAA34459.1	CAA33903.1 CAA38635.1 BAA00536.1 AAA80594.1 BAA32346.1	AAF89205.1 AAD48017.1 AAA3392.1 BAA00537.1 CAA32657.1 AAC34983.1 AAA34141.1		CAA45866.1 CAC34420.1 BAA13547.1 BAA85844.1 AAA33281.1 AAA33280.1

18 Lycopersicon esculentum 16 Carica papaya 17 Asparagus officinalis		Lycoperation	Cicer arietin		11 11 12 12 12 12 12 12 12 12 12 12 12 1	, racic		/4 Carica papaja				/y Chidiopiast Nephiroseimis		ar.	Nicotiana tabacum	Pisum sativum		Oryza sativa		Glycine max			-	•	•	03				Chlamydomonas reinhardtii			Chlamydomonas reinhardtii	11 Euphorbia esula	Zea mays	Petroselinum crispum	42	_	
AJ012798 AF064786 X77319	AE020390	AUU12/30 AF154421	A.TOO 6771	08078134	AF 101050	AU016378	, 00000 F	Ar.079874	Ar.TSSTZ4	ָר נ נ	2337	AE.T3/3/9		AF16611	M94204	X14561	AF234537	AF145053	AE264877	X15108	,	2539	D38091	D38089	X94693	AF013803	X67819	M31922	M31921	016726	AJ006768	016725	U16724	AF242311	U08225	X53831	AB018242	D38087	!
CAA10175.1 AAC77377.1 CAA54525.1	AAC25984.1	CAA101/3.1	L 3500/347	CARO 1230.1	AAG12249.1	CAALUU64.1	CARUSTU.1	AAC28739.1	AAD45349.1			AAD54821.1	olivacea	AAE43860.1	AAA18546.1	CAA74893.1	AAK08141.1	AAF15312.1	AAG32661.1	CAA75382.1			BAA07280.1	BAA07278.1	CAA64356.1	AAB66346.1	CAA48030.1	AAA34249.1	AAA34247.1	AAA98453.1	CAA07234.1	AAA98451.1	AAA98447.1	AAF65769.1	AAB04687.1	CBB37828.1	BAA85117 1	BAA07276.1	
Linum usitatissimum Glycine max Linum usitatissimum	Linum usitatissimum	Linum usitatissimum	Glycine max		usi		Linum usitatissimum	Linum usitatissimum	Linum usitatissimum	Linum usitatissimum		us					Linum usitatissimum			us			Viona radiata				a	Lycoperation esculentum	1040	orosias alecandis	DIROUGHCA CHCHACCA	Cicer arrections	Lycopersicon esculentum Manaifers indica	וומוולדובים דוורים					
U27081 AF175399 AF093646		AF093649	AF175394	AJ310161	AJ310157	AJ310153	AJ310150	AF310964	AJ310155	AF310968	AJ310151	AJ310164	AJ310150	AJ310162	AJ310154	A.T310159	A.T310163	A.T310158	05501654	AF310966	AF310962	AF310958	AF310959	AF310961	PF310960	2000	2536	AF229795	NE220194	AE 22 2 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	787C101 4	7077114	76/2700A	7 F O C C C C F K	ACCIDEN	764004	AJ005042	AF154420	Aronapre Ar
AAA91022.1 AAG09954.1 AAD25973.1	CAC35327.1	•	AAG01051.1	CAC35336.1	CAC35332.1	CAC35328.1	CAC35325.1	AAK28810.1	CAC35330.1	AAK28812.1	CAC35326.1	CAC35339.1	CAC35321.1	CAC35337.1	CAC35329.1	1.03000000	1.86686747	CAC33333.1	CAC33333.1	AAK28800.1	AAK28809.1			-	1.000004.k	-	C ON OT COS	. ,-	1.25C) GRAV	AAE 0/341.1	BAB21492.1	CAMIDIZO.1	CAMIUI /4 . 1	•	CAA0945/.1	CAASSI62.1	CAA06309.1	AAF70821.1	AAB614 /U.1

Spinacia oleracea Spinacia oleracea Asparagus officinalis Oryza sativa Spinacia oleracea Mercurialis annua Oryza sativa Oryza sativa	Populus balsamifera subsp. Gossypium hirsutum Nicotiana tabacum Populus kitakamiensis Medicago sativa Ipomoea batatas	Phaseolus vulgaris Medicago sativa Populus kitakamiensis Scutellaria baicalensis Armoracia rusticana Populus kitakamiensis Spinacia oleracea Stylosanthes humilis Phaseolus vulgaris Populus balsamifera subsp.	Glycine max Linum usitatissimum Oryza sativa Glycine max Populus nigra Triticum aestivum Medicago sativa Populus nigra Triticum aestivum Populus balsamifera subsp. Medicago sativa Medicago sativa
AF244924 AF244923 AB042103 AP001383 AF244922 X91232 AP001386 AP001383	X97351 AF155124 AB027752 D30653 X90693	AF149280 X90694 D38051 AB024439 D90115 D30652 Y10466 L37790 AF149277	AF014502 AF049881 AF014468 AF007211 D83225 X85230 L36157 D83224 X85228 X97350 X97350
AAF63027.1 BAA94962.1 BAA92500.1 AAF63025.1 CAA62615.1 BAA92497.1	CAA66037.1 trichocarpa AAD43561.1 BAA82306.1 CAA62226.1	CAASS4052.1 AAD37430.1 CAAS227.1 BAA77389.1 BAA14143.1 BAA1492.1 CAA71492.1 AAB02554.1 AAB02554.1 CAA66034.1	AAB97734.1 AAC95277.1 AAC49819.1 AAC498519.1 BAA11853.1 CAA59487.1 BAA11852.1 CAA59485.1 CAA59485.1 CAA6036.1 trichocarpa CAA6225.1
2 2 2 2 D	Lilium longiflorum Lilium longiflorum Datisca glomerata Petunia x hybrida Nicotiana tabacum	Petunia x Petunia x Brassica ra Petunia x Brassica ra Oryza sati Petunia x	Petunia x hybrida
D38090 D38088 U10041 X94973 AJ245999 X95763 AF193345	AB003782 AJ010974 2541 AF119050 D26086 AF053077	D26084 D26083 U76554 D26085 U76555 AF332876 AB006600 AB006600 AB006605 AB00453	AB035132 AB006597 AB006599 AB006606 AB006603 AB000456 AB006601 AB006601 AB006601 AB006601 AB006601
BAA07279.1 BAA07277.1 AAA86947.1 CAA64423.1 CAB53509.1 CAA65069.1 AAF07182.1 BAA96096.1	·	BAA05077.1 BAA05076.1 AAB53260.1 BAA05078.1 AAB53261.1 AAK01713.1 BAA21920.1 BAA21922.1 BAA19112.1 BAA19112.1 BAA96071.1	BAA96070.1 BAA21919.1 BAA19114.1 BAA21928.1 BAA21928.1 BAA21928.1 BAA19111.1 BAA21926.1 BAA21924.1 BAA21924.1 BAA21924.1

519

SEQ ID NO. 2545

Oryza sativa	Pisum sativum	Nicotiana tabacum			Pseudotsuga menziesii	Pisum sativum	Lycopersicon esculentum	Zea mays	Mesembryanthemum crystalli	Lycopersicon esculentum	Zea mays	Zea mays	Oryza sativa	Nicotiana tabacum	Avicennia marina	Nicotiana tabacum	Triticum aestivum 0	Oryza sativa	Catharanthus roseus	Brassica oleracea				Mesembryanthemum crystallinum	Picea mariana		•		Phalaenopsis sp. SM9108	Zea mays	Gossypium hirsutum	Prunus armeniaca	Helianthus annuus	Pimpinella brachycarpa	Pimpinella brachycarpa	Pimpinella brachycarpa	Physcomitrella patens
AL117264	2550 AB052729	M96432	M93430	2551	AJ131733	1.29077	123762	AF034946	AF176040	X73419	AF032468	AJ002959	AP001081	AB026055	AF262934	AB026056	M62720	U15971	AF091621	U17250	X82938	AF008910	D17786	AF165420	AF051240	!	2552	AF172931	034743	X17898	AF336277	AF139497	AE339748	X95193	X94449	X94375	AB028074
CAB55395.1	SEQ ID NO. 3 BAB41080.1	AAA34054.1	AAA34085.1		CAA10494.1	AAA64427.1	AAA34125.1	AAB88617.1	AAD51109.1	CAA51821.1	AAC12662.1	CAA05772.1	BAA90392.1	BAB40310.1	AAE73016.1	BAB40311.1	AAA34310.1	AAB02168.1	AAD42941.1	AAA86089.1	CAA58111.1	AAB63513.1	BAA21006.1	AAF22280.1	AAC32141.1			AAG43405.1	AAB37230.1	CAB51059.1	AAK19610.1	AAD38144.1	AAA63768.2	CAA64491.1	CAA64221.1	CAA64152.1	BAA93462.1
Populus balsamifera subsp.	Medicago truncatula Raphanus sativus	Linum usitatissimum	Hordeum vulgare Triticum aestivum	Orvza sativa	Orvza sativa	Armoracia rusticana	Nicotiana tabacum			Nicotiana tabacum		Sorahum bicolor	Nicotiana tabacum	Cucumis sativus	Vigna unguiculata	Viena unquiculata	Sorubin bicolor	Nicotiana tabacum		Hevea brasiliensis	Solanum tuberosum	Solanum tuberosum		Solanum tuberosum		Solanum tuberosum	Solanum tuberosum	Solanum tuberosum			•	=			Nicotiana tabacum		Oryza sativa
X97349	U16727 x91172	L07554	AJ276227 X53675	D16442	AF014470	090116	979COT.		25.05	246 AF158027	AF061282	AF061282	DF158253	V12793	AF318315	75050174	AE153087	1168484	A.T223038	A.1223039	26950X	X01125	1109331	3650X	M18880	X13179	M21879	X13178	1,27,27	168483	DE158254) -	1	7547	78011	AP001552	AP001383
CAA66035.1	trichocarpa AAB48986.1	AAB47602.1	CAB99487.1	CAA37713.1	1.11600000	1.1700.000	1.66175444	1.001FCAMA	C ON 01 000	٠.	1.00100044	1 07122004	1.00560044		1 70777344	AAN2//2/.1	1.10/107444	•	•	CBA11042.1	CAR27571 1	CA205500	ו אסנאסממת	7327588 1	AAA33819.1	CAA31576.1	AAA33828.1		1 25718447	1 70700044	1.05500344	AAE 303/0.1	T. COOCTUST	כ טאַ טד טפּס		1.0577.20AR	BAA9251.1

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Prunus persica Solanum tuberosum Zea mays Prunus persica Lilium longiflorum Vicia faba Vicia faba Wicia faba Medicago truncatula Medicago truncatula Medicago truncatula Nicotiana plumbaginifolia Oryza sativa Hordeum vulgare Cucumis sativus Lycopersicon esculentum Vicia faba Zea mays Rodeum vulgare Fragaria x ananassa Zea mays Nicotiana tabacum Capsicum annuum annuum Capsicum annuum annu	Solanum tuberosum Lavatera thuringiaca Nicotiana tabacum Capsicum annuum Nicotiana tabacum Nicotiana tabacum Capsicum annuum Gossypium hirsutum Fragaria x ananassa
AJ271439 X76536 U09989 AJ271438 AY029190 AB022442 AJ310523 AJ32892 AJ32891 AF140499 AF132891 AF156683 AF140499 AF132891 AF132891 AF138817 U08985 U08985 AF263917 U08985 AF289025 AF188832 X98244 AF113545 AF136956 X98245 U089609 AF13695	AJ401032 AJ401032 AF006197 Y14972 X93308 Y14973 Y17503 AJ130829 U73746
CAB69824.1 CAB54046.1 AAB60276.1 CAB69823.1 AAK31799.1 BAA37150.1 CAB85495.1 CAB85495.1 CAB85495.1 CAB85495.1 CAB85495.1 AAD29712.1 AAD29712.1 AAA20600.1 AAA20600.1 AAA20600.1 AAA20600.1 AAA20600.2 AAA20600.2 AAA20600.2 AAA20600.1 CAA66900.2 AAD24540.1 CAA66901.1 AAC33305.1 AAC33305.1 AAC37494.1	AACS (1955.1 CAB92956.1 AAB71830.1 CAA75213.1 CAA76769.1 CAA75214.1 CAA76770.1 CAA10210.1 AAB67993.1
Physcomitrella patens Physcomitrella patens Lycopersicon esculentum Glycine max Physcomitrella patens Zinnia elegans Physcomitrella patens Physcomitrella patens Physcomitrella patens Physcomitrella patens Glycine max Glycine max Glycine max Glycine max Glycine max Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Dunaliella bioculata Zea mays Oryza sativa Nicotiana plumbaginifolia Lycopersicon esculentum Nicotiana plumbaginifolia Zea mays Oryza sativa Nicotiana plumbaginifolia Zea mays Oryza sativa Vicia faba Phascolus vulgaris	Mesembryanthemum crystallinum Nicotiana plumbaginifolia Kosteletzkya virginica Nicotiana plumbaginifolia Lycopersicon esculentum Nicotiana plumbaginifolia Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Cycia faba Zostera marina Oryza sativa
AB028077 AB028080 X94947 X92489 AB028075 AB028076 AB028076 AF195029 AF195037 X76535 AF156679 X93592 AF156679 X93592 AF156679 X93592 AF156679 X93592 AF156679 X93592 AF156679 X93593	U84891 M80489 AF029256 M27888 M60166 M80490 AF275745 AF179442 AJ310524 D45189
BAA93465.1 BAA93468.1 CAA64417.1 CAA63222.1 BAB33463.1 BAB3466.1 BAB3466.1 BAA93466.1 BAA93466.1 AAG28435.1 CAA68234.1 AAD11618.1 AAD11618.1 AAD11618.1 AAD34138.1 CAA63790.1 AAB34138.1 CAA647275.1 CAA47275.1 CAA59800.1 BAA06629.1 AAB35314.2	AAB41898.1 AAB41898.1 AAB84202.2 AAA34052.1 AAA34173.1 AAA34098.1 AAE58344.1 AAD55399.1 CAC29436.1 BAAO8134.1

522

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Cuscuta japonica Helianthus annuus	Malus x domestica	Pisum sativum	Brassica rapa	Helianthus annuus	Medicago sativa	Nicotiana tabacum	Fragaria x ananassa	Daucus carota	Papaver somniferum	Pennisetum glaucum	Chenopodium rubrum	Quercus suber	Oryza sativa	Castanea sativa	Oryza sativa	Oryza sativa	Oryza sativa	Pennisetum glaucum	Oryza sativa	Pennisetum glaucum	Zea mays	Oryza sativa	Pseudotsuga menziesii	Oryza sativa	Pseudotsuga menziesii	Oryza sativa	Triticum aestivum			Phaseolus vulgaris	Asparagus officinalis	Scutellaria baicalensis			•	Nicotiana tabacum	Oryza sativa
AB017273	AF161179	M33900	AF022217	U46545	X58710	AF166277	U63631	X53852	008601	X94193	X53870	AJ000691	M80939	AJ009880	M80938	X60820	083669	X94192	D12635	X94191	X65725	081385	X92983	U83671	X92984	083670	X13431	(L	2559	AF149277	AB042103	AB024438	AP001383	x97351		AB027752	AP001383
BAA33062.1	AAF34133.1	AAA33671.1	AAB72109.1	AAB63311.1	CAA41546.1	AAD49336.1	AAC39360.1	CAA37848.1	AAA61632.1	CAA63903.1	CAA37864.1	CAB36910.1	AAA33910.1	CAA08908.1	AAA33909.1	CAA43210:1	AAC78392.1	CAA63902.1	BAA02160.1	CAA63901.1	CAA46641.1	AAB39856.1	CAA63570.1	AAC78394.1	CAA63571.1	AAC78393.1	CAA31785.1			AAD37427.1	BAA94962.1	BAA77388.1	BAA92500.1	CAA66037.1	trichocarpa	BAA82306.1	BAA92497.1
0					xell of the law	Orvan antiva		omitrella	bimyacomatacasa recessos pientinalla brachycarba	pimpipalla brachycarba	physical areas	Orves sativa				, ,	caroca mitrella	aativa	rajon		Dancia carota	Dimpinella brachycarba	physcomitrella patens	The state of the s			Medicago sativa	Lycopersicon esculentum	Glycine max	Glycine max	Lycopersicon esculentum	Pisum sativum	Lycopersicon esculentum	Lycopersicon esculentum		Daucus carota	Helianthus annuus
AF308588	3 4	141393	557	しろりてろいまれ	AE00/201	AF 1042/0	27/CFT 44	AF143/20	ABU20070	35500	A34373	AB02007	000000000000000000000000000000000000000	AFZILL93	200000	TODOCY	DZ6376	AB020074	AF 143731	11/300	A502007	07797	-	AD0200A	25.52	M11318	X58711	AF123257	X01104	M11395	ď)	x56138			X53851	AJ237596
AAG32467.1	CAA06492.1	AAA / 3894 . 1			AAC 19450. I	AAEOL/63.1	AAD3/698.1	AAD3/695.1		CAA64491.1	CAA64152.1	BAA93467.1	AAK312/0.1	AAF19980.1	CAA06/28.1	CAA65456.2	BAAUS625.1	BAA93462.1	AAD3//00.1	CABO/IIO.I	BAASS404.1	BAAZ101/.1	•	•			CAA41547.1	AAD30454.1	CAA25578.1	1 5/05/2010	1.07000044	1.20200000	ן בוספנימים	APD30453 1	AAA33974.1	CAA37847.1	CAB55634.2
	AF308588 Ceratopteris richardii BAA33062.1 AB017273	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAB63310.1 U46544	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAB63310.1 U46544 L41393 Malus x domestica AAR34133.1 AF161179 AAA33671.1 M33900	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAB63310.1 U46544 L41393 Malus x domestica AAA33671.1 M33900 AAA33671.1 AF022217	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAB63310.1 U46544 L41393 Malus x domestica AAF34133.1 AF161179 AAF33671.1 M33900 AAB72109.1 AF022217 AAB63311.1 U46545	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAE63310.1 U46544 L41393 Malus x domestica AAF34133.1 AF161179 AAF067961 Malus x domestica AAB63311.1 U46545 AF067961 Malus x domestica CAA41546.1 X58710	AF308588 Ceratopteris richardii BAA33062.1 AB017273 AJ005347 Cicer arietinum AAB63310.1 U46544 L41393 Malus x domestica AAR34133.1 AF161179 ARA33671.1 M33900 AAR32109.1 AF022217 AF067961 Malus x domestica CAA41546.1 X58710 AF184278 Glycine max AAB63311.1 U46545 AF184278 Glycine max AAB63311.1 AF166277	AF30858 Ceratopteris richardii BAA33062.1 AB017273 Cuscuta Japonica AJ005347 Cicer arietinum AAF34133.1 U46544 Helianthus annuus AAF34133.1 AF161179 Malus x domestica AAA33671.1 M33900 Pisum sativum AAF37109.1 AF022217 Brassica rapa AF184278 Glycine max AAB63311.1 U46545 Helianthus annuus AF184278 Glycine max AAA415729 Oryza sativa AAA63360.1 U63631 Fragaria x ananass	AF30858 Ceratopteris richardii BAA33062.1 AB017273 Cuscuta Japonica AJ005347 Cicer arietinum AAF34133.1 046544 Helianthus annuus AAF34133.1 AF161179 Malus x domestica AAA33671.1 M33900 Pisum sativum AAF342109.1 AF022217 Brassica rapa AF184278 Glycine max AAB63311.1 046545 Helianthus annuus AF184278 Glycine max AAC39360.1 W6545 Nicotiana tabacum AAF145726 Oryza sativa AAC39360.1 W63631 Fragaria x ananass CAA37848.1 X53852 Daucus carota	AF30858 Ceratopteris richardii BAA33062.1 AB017273 Cuscuta Japonica AJ005347 Cicer arietinum AAF34133.1 AF161179 Malus x domestica AAF34133.1 AF161179 Malus x domestica AAF34133.1 AF161179 Malus x domestica AAF34133.1 AF162217 Brassica rapa AF184278 Glycine max AAF184278 Glycine max AAF184278 Oryza sativa AAF184276 Oryza sativa AAF184276 Oryza sativa AAF184278 CAA37848.1 X53852 Daucus carota AAF18726 Oryza sativa AAF1848.1 X53852 Daucus carota AAF18726 Oryza pimninella patens AAA61632.1 U08601 Papaver somniferum	AF30858 Ceratopteris richardii BAA33062.1 AB017273 Cuscuta Japonica AJ005347 Cicer arietinum AAF34133.1 AF161179 Helianthus annuus AAF34133.1 AF161179 Malus x domestica AAA33671.1 M33900 Pisum sativum AAF184278 Glycine max AF184278 Glycine max AF184278 Oryza sativa AF185290 Cyza sativa AAC39360.1 U63631 Fragaria x ananass AAC39360.1 U63631 Fragaria x ananass CAA37848.1 X53852 Daucus carota AAA61632.1 U08601 Papaver somniferum CAA63903.1 X94193 Pennisetum glaucum	AF30858 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CAA1366.1 AR382 AR060 Dacus carcta AR070807 Bryscomitteella patens CAA1386.1 X5387 Chenopodium rubrum AR070807 Bryscomitteella patens CAA13960.1 AR07080 Cryza sativa AR070807 Bryscomitteella patens CAA1396.1 X5387 Chenopodium rubrum AR070807 Bryscomitteella patens CAA138

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Raphanus sativus Spinacia oleracea		Nicotiana sylvestris	Pisum sativum Viene radiata	Spina tactace		Orvza sativa	Orvza sativa			Hordeum vulgare	Phragmites australis	Phracmites australis				Oryza saczya	Hordeum vulgare	Hordeum vulgare	Hordeum vulgare			Oryza sativa	1		Phaseolus vulgaris	Thompse trifida	Brassica oleracea								Brassica oleracea	Brassica oleracea	Brassica rapa	Brassica oleracea	Brassica napus subsp.	•
X91172 Y10466	2560	D16247	AF271892	AE 136667	A59531	AE012162 AB042644	DB042643	25035000	2561	AF129479	AB055629	NB055632	AB055630	AD00004	ABUSSASE	AF129485	AF129484	AJ300161	AF129480		2564	AP001551		25.69	78087	1120048	020340	112331	110200	0.0011	6278TX	082481	X12530	X98520	M76647	X14286	AB000970	AB032473	AJ245479	
CAA62597.1 CAA71492.1	SEO ID NO. 2		AAF75791.1	AAE40306.1	CAABBISS.I	AAD20980.1	1.00/06444	BAA93/04.1	CN CT CAS		DAD 32442 1	1 37775444	BAB32443.1	DAD22443.1	BAB32444.1	AAF36497.1	AAF36496.1	CAC15061.1	AAF36492.1		SEO TO NO.			ON OIL OGO		AAD210/2.1	AAC23342.1	CAA/3134.1	CAB418/9.1	CAA/4661.1	CAB418/8.1	AAB93834.1	CAA73133.1	CAA67145.1	AAA33000.1	CAA74662.1	BAA23676.1	BAA92836.1	CAB89179.1	
Oryza sativa Glycine max	Populus nigra	Medicago sativa Spinacia oleracea	Oryza sativa	Medicago sativa	Spinacia oleracea	Scutellaria baicalensis	Linum usitatissimum	Mercurialis annua	Arachis hypogaea	Gossypium nirsutum	Stylosanthes numilis	Ipomoea batatas	Spinacia oleracea	Armoracia rusticana	Spinacia oleracea	Picea abies	ariticum aestivum	Nicotiana sv) vestris	מווט קיין יי			Populus balsamitera subsp.		Populus kitakamiensis	Glycine max	Spinacia oleracea	Medicago sativa	Striga asiatica	Oryza sativa	Linum usitatissimum	Populus kitakamiensis	Orvza sativa	Donilie nigra	Domine helsemifera subsp.			,	ALMOLACIA LUBILICANA Demilia Vitabomionsis	Populus Alcakamiensis	Oryza sativa
AP001366	AE 00 / 211 D83225	X90694		X9063	AF244922	AB024439	L24120	X91232	M37636	AF155124	L37790	AJ242742	AF244923	X57564	Y10465	A.7250121	VOEDSO X	X83230		AF0144/0	D16442	x97348		D30653	AF014502	X10467	L36156	AF043234	AP001551	L07554	030652	75014467		U83224	A91349		75005	DACTIE	D3805I	X66125
BAA92422.1	AAC98519.1 BAA11853.1	CAA62227.1	AAE 63027.1 pac49819.1	CAA62226.1	AAF63025.1	BAA77389.1	AAB48184.1	CAA62615.1	AAB06183.1	AAD43561.1	AAB02554.1	CAB94692.1	AAF63026.1	CAA40796.1	1 1491 1	CAB65334 1	CABGOSON . I	CAA59487.1	AAA34050.1	AAC49821.1	BAA03911.1	CAA66034.1	trichocarpa	BAA06335.1	AAB97734.1	CAA71493.1	AAB41810.1	AAB97853.1	BAA92967.1		1 06330 4 1	1.000000	AAC49818.1	BAAII852.1	CAA66035.1	trichocarpa	CAA62225.1	BAA14144.1	BAA07241.1	CAA46916.1

Oryza sativa Medicago sativa Armoracia rusticana	Gossyptum niisarum Mercurialis annua	Lycopersicon esculentum	Armoracia rusticana	Populus kitakamiensis	Spinacia oleracea	Ipomoea bararas	Spinacia oleracea	Linum usitatissimum	Glycine max	Spinacia oleracea			Populus balsamifera subsp.			Vigna angularis		Petroselinum crispum	Populus balsamifera subsp.			Spinacía oleracea		•	Berberis stolonifera	Eschscholzia californica		Papaver somnlerum		•	.Lycopersicon esculentum	Zea mays	Lycopersicon esculentum			Phaseolus vulgaris	Zea mays
AP001383 X90695 X57564	AF155124 X91232	L13654	D90115	D11102	AF244922	AJ242/42	Y16776	L07554	AE014502	AF244923	AJ250121	L13653	X97351			D11337	222920	L36981	X97348		AJ401274	X10464		2575	AE049347	865550	AF005655	AF025430	1	2577	AB022687	AF250047	AB022686		2578	AF078082	U82481
BAA92500.1 CAA62228.1 CAA40796.1	AAD43561.1 CAA62615.1	AAA65637.1	BAA14143.1	BAA01877.1	AAF63025.1	CAB94692.1	CAA76374.2	AAB47602.1	AAB97734.1	AAF63026.1	CAB65334.1	AAA65636.1	CAA66037.1	trichocarpa	BAA11853.1	BAA01950.1	CAA80502.1	AAA98491.1	CAA66034.1	trichocarpa	CAC21391.1	CAA71490.1			AAD17487.1	AAB20352.1	AAC39358.1	AAC61839.1			BAA76896.1	AAF97517.1	BAA76895.1			AAD21872.1	AAB93834.1
H O H	Brassica napus Brassica rapa		Brassica rapa		Brassica rapa	Nicotiana tabacum	Brassica napus	Oryza sativa	Populus nigra	Orvza sativa	Brassica nabus	Populus nigra	Oryza sativa	3		Glycine max	Glycine max	Aninacia oleracea		Spinacia oleracea		Spinacia oleracea	Scutellaria baicalensis	Oryza sativa	Asparagus officinalis	Trifolium repens	Lycopersicon esculentum	Spinacia oleracea	Nicotiana tabacum	Nicotiana tabacum	Glycine max	Oryza sativa	Oryza sativa	Glycine max	Medicado truncatula	Stylosanthes humilis	Medicago sativa
M97667 218921 D88193	000443	AB032474		D38564	AB054061	AF088885	AY028699	127821	AB041503	A.T243961	DV007545	AB041504	AC073405		1570	1151193	1151194	877717	0.1011 0.101276	DC21250A	M37637	Y10469	AB024437	D14997	AB042103	AJ011939	X94943	AF244921	D42065	D42064	051192	~	AP001366	U51191	U16727	L77080	L36158
AAA33008.1 CAA79355.1 BAA21132.1	AAA62232.1	BAA06283.1 BAA92837.1	BAA07576.1	BAA07577.2	BAB21001.1	AAD52097.1	AAK21965.1	AAA33915.1	1 604704 T	Cap51836 1	1.0021044	RAM 4510.1	AAG03090.1		SEC TO NO 2		בייספיווטאי	•		CACC1393.1		Cap71495.1	BDD77387 1	BAA03644.1	BAA94962.1	CAA09881.1	CAA64413.1			•			BAA92422.1			AAB67737.1	AAB41812.1

Brassica napus subsp. napus Brassica oleracea Brassica rapa Brassica rapa Brassica napus Brassica oleracea Brassica oleracea Brassica oleracea Brassica rapa Brassica rapa Brassica rapa Brassica rapa Brassica rapa Brassica rapa Brassica rapa Brassica napus Oryza sativa Oryza sativa Brassica napus	Brassica oleracea 52	Zea mays Mesembryanthemum crystallinum Zostera marina Glycine max	Oryza sativa Nicotiana plumbaginifolia Kosteletzkya virginica Prunus persica Vicia faba	Solanum tuberosum Nicotiana plumbaginifolia Lycopersicon esculentum Vicia faba	Vicia Laba Nicotiana plumbaginifolia Prunus persica Nicotiana plumbaginifolia Nicotiana plumbaginifolia Oryza sativa
AJ245479 Y14285 AB000970 D30049 D88193 U00443 Z18921 Y14286 AB032474 D38563 AB054061 AF08885 AY028699 AC073405 L27821 AY007545 AB041504	218884	2580 009989 084891 045189 AF195028	D31843 AF156691 AF029256 AJ271438 AJ310524	X76535 X66737 U72148 S79323	AB022442 M80490 AJ271439 AF156679 M80489 D10207
CAB89179.1 CAA74661.1 BAA23676.1 BAA06285.1 BAA62232.1 CAA74662.1 CAA74662.1 BAA07577.2 BAA07577.2 BAA07577.2 BAA07576.1 BAB21001.1 AAD52097.1 AAG16628.1 AAG16628.1			BAA06629.1 AAD46188.1 AAB84202.2 CAB69823.1 CAC29436.1	CAA54045.1 CAA47275.1 AAB17186.1 AAB35314.2	BAA37150.1 AAA34098.1 CAB69824.1 AAD46186.1 AAA34094.1 BAA01058.1
Brassica oleracea Ipomoea trifida Brassica oleracea Brassica napus	Brassica oleracea Brassica rapa	brassica rapa Brassica rapa Brassica oleracea Brassica napus Oryza sativa Oryza sativa	Oryza sativa Nicotiana tabacum Dhaseolus vulgaris	Brassica oleracea Ipomoea trifida Zea mays Brassica oleracea	
Y12531 U20948 X98520 Y12530 AB000970 Y18260 Y14286 Y14285 D30049 D88193 AB032473 Z18921 M76647 U00443 M97667	AB032474 AB054061	D38564 D38564 218884 AY028699 AJ243961	AF142596 AF142596 2579	X12531 X12531 U20948 U82481 X12530	X98520 X18260 M76647 X18259 AB032473 M97667
CAA73134.1 AAC23542.1 CAA67145.1 CAA73133.1 BAA23676.1 CAB41878.1 CAA74662.1 CAA74661.1 BAA06285.1 BAA06285.1 AAA33000.1 AAA33008.1 CAB89179.1	BAA92837.1 BAB21001.1	BAA07576.1 BAA07577.2 CAA79324.1 AAK21965.1 CAB51836.1	:::: 6	AADZ1872.1 CAA73134.1 AAC23542.1 AAB93834.1 CAA73133.1	<i>.</i>

																	52	26																				E
Pyrus pyrifolia Medicago sativa	Ocimum basilicum		Medicado sativa		Thalictrum tuberosum	Thalictrum tuberosum	Thalictrum tuberosum	Pisum sativum	Capsicum annuum	Nicotiana tabacum	Thalictrum tuberosum	Nicotiana tabacum	Populus kitakamiensis	Populus tremuloides	Populus tremuloides	Capsicum annuum	Thalictrum tuberosum	Populus tremuloides	Clarkia breweri	Populus x generosa	Populus tomentosa	Populus kitakamiensis	Eucalyptus gunnii	Clarkia breweri	Hordeum vulgare	Medicago sativa	Capsicum chinense	Prunus dulcis	Zinnia elegans	Saccharum officinarum	Triticum aestivum	Liquidambar styraciflua	Lolium perenne	Vitis vinifera	Eucalyptus globulus	Fragaria x ananassa	Zea mays	Chrysosplenium americanum
AB014456 AF000975	AF154917	30,500	09/123 AF000976	AF154918	AF064694	AE064696	AF064693	069554	AF212316	X74452	AE'064697	X74453	D49711	013171	X62096	083789	AF064695	050522	09690	M73431	AE'237777	D49710	X74814	AF006009	X77467	M63853	AF081214	X83217	U19911	AJ231133	U76384	AF139533	AF010291	AF239740	AF168776	AF220491	M73235	U16794
BAA86059.1 AAC49926.1	AAD38189.1	APPA10005.1	AAC49928.1	AAD38190.1	AAD29842.1	AAD29844.1	AAD29841.1	AAC49856.1	AAG43822.1	CAA52461.1	AAD29845.1	CAA52462.1	BAA08559.1	AAB61731.1	CAA44006.1	AAC17455.1	AAD29843.1	AAB68049.1	AAC01533.1	AAF60951.1	AAF63200.1	BAA08558.1	CAA52814.1	AAB71141.1	CAA54616.1	AAB46623.1	AAC78475.1	CAA58218.1	AAA86718.1	CAA13175.1	AAD10485.1	AAD48913.1	AAC18623.1	AAE44672.1	AAD50439.1	AAF28353.1	AAB03364.1	AAA80579.1
Lilium longiflorum Lycopersicon esculentum		rycopersicon escurentum	Lycopersicon esculentum	colonim tiberosiim	Nicotiana plumbaginifolia	Dinalialla bioculata	Dunaliella acidophila	Phaseolus vulgaris	Orvza sativa	Lycopersicon esculentum	Lycopersicon esculentum	Dunaliella bioculata	Lycopersicon esculentum	Mesembryanthemum crystallinum	Glycine max		Orvza sativa	Nicotiana plumbaqinifolia	2ea mays	Zea mays	Cucumis sativus			Lycopersicon esculentum	Zea mays	Triticum aestivum	Triticum aestivum	Triticum aestivum	Zea mays	•		Pinus taeda	Pinus radiata	Pinus radiata	Prunus armeniaca		Coptis	
AY029190 M60166	AJ310523	AF2/5/45	AF179442	CORCRY	A76336	X03500	1154690	X85804	AP001111	M96324	AF050495	X73901	AF050496	AF145478	AF195029	X99972	082966	M80491	008984	008985	AF289025		2581	AF259801	AF076954	212616	M95818	M95819	AF076955		2582	039301	U70873	AF119225	U82011	D29812	D29811	AJ223151
AAK31799.1 AAA34173.1	CAC29435.1	AAF98344.1	AAD55399.1		CAA54046.1	•	•	•	BABG0510 2	DAB34138.1	AAD11617.1	CAA52107.1	AAD11618.1	1.39818044	PAG28436.1	CAM68234.1	AAB58910.1	1.05005444	AAA20600.1	AAA20601.1	AAG01028.1		SEO ID NO. 2		AAC27714.1	CAA78262.1	AAA34295.1	AAA34296.1	AAC27715.1		SEO TO NO.		AAB09044.1	AAD24001.1	AAB71213.1	BAB08005.1	BAB08004.1	CAA11131.1

Zea mays Zea mays Mesembryanthemum crystallir Zea mays Zea mays	Brassica napus Plastid Solanum demissum Capsicum annuum	Limnanthes douglasii Simmondsia chinensis Brassica napus Brassica napus Dunaliella salina Zea mays	Brassica napus Brassica napus Brassica oleracea Brassica rapa Oryza sativa	Cucurbita moschata Cucurbita maxima Cucurbita maxima Cicer arietinum Glycine max Cucumis sativus	Arabis glabra Arabis gemmifera Arabidopsis lyrata subsp. Vitis vinifera Malus x domestica Vigna angularis
AB042260 AB042269 AF219972 AB004882 AB031011	2596 AF084554 AJ131455 X71952	2597 AF247134 U37088 U50771 AF009563 AF333040 AJ291728	AF054497 AF054500 AF054499 AF054499 AF05521	AF150627 222647 217331 AJ271666 AJ010265 D63388	2600 AB006071 AB006070 AB006072 Z68123 AF309514 D11335 Z11563
7300.1 0582.1 2350.1 5253.1 5112.1	SEQ ID NO. 2 AAD03693.1 CAA10372.1 CAA50750.1	SEQ ID NO. 2 AAG28600.1 AAC49186.1 AAA96054.1 AAB72178.1 AAK11266.1		AAF74345.1 CAA80364.1 CAA78979.1 CAB71030.1 CAB44031.1 BAA09704.1	SEQ ID NO. BAA21876.1 BAA21875.1 BAA21877.1 kawasakiana CAA92207.1 AAG25709.1 BAA01948.1
Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum Lycopersicon esculentum		Lycopersicon nirsurum Lycopersicon pimpinellifolium Lycopersicon pimpinellifolium Oryza sativa Oryza sativa Hordeum vulgare	Lycopersicon pennellii Nicotlana tabacum Vigna aconitifolia	Pisum sativum Nicotiana tabacum Pisum sativum Oryza sativa	Zea mays Cea mays Chlamydomonas reinhardtii Chlamydomonas reinhardtii
2590 AF053993 AF053998 AF053995 AF053997	AF053994 AJ002236 AF053996 AJ002237	AJ002235 AJ002236 U15936 AP002539 AF166121 AL117265	2592 AF004165 2593 AF349948 L22584	2594 AF061962 AB059832 AF061963 AB015431	2595 AB060130 AB042267 AB042261 AB042268 AB031012 AF339732 AF174480
SEQ ID NO. 2 AAC78591.1 AAC78596.1 AAC78593.1	AAC78592.1 CAA05276.1 AAC78594.1 CAA05279.1	CAA05268.1 CAA05274.1 AAA65235.1 BAB08215.1 BAA96776.1 AAD50430.1 CAB55409.1	SEQ ID NO. 3 AAB61598.1 SEQ ID NO. 3 AAK14408.1 AAC37400.1	SEQ ID NO. AAC16330.1 BAB41076.1 AAC16331.1 BAA31260.1	SEQ ID NO. BAB41137.1 BAB20580.1 BAB20579.1 BAB20581.1 BAA82873.1 BAA85113.1 AAK14395.1 AAK14395.1

vin:	528	
Vitis vinifera Forsythia x intermedia Vitis vinifera Perilla frutescens Vitis labrusca x Vitis vin: Vitis vinifera Manihot esculenta Cicer arietinum Prunus avium Hordeum vulgare	Vigna radiata Oryza sativa Hordeum vulgare Pyrus communis Oryza sativa Nicotiana glauca Picea abies Avicennia marina Oryza sativa Hordeum vulgare Hordeum vulgare Triticum aestivum Hordeum vulgare Brassica oleracea Brassica oleracea Brassica oleracea Hordeum vulgare Oryza sativa Hordeum vulgare Sriticum aestivum Hordeum vulgare Oryza sativa Sorghum bicolor	ı
AE047095 AF127218 AE047093 AB002818 AB047091 AF000372 X77460 2613 AJ225027 AF298827 X94296	2614 U20808 2615 AF017358 X96979 AF221503 U29176 AF151214 AB007843 AF331710 AP002094 U18127 X59253 X62395 X68654 AF302788 Z37115 AF093751 L33904 U63993 AF017360 Z66529	
BAB41022.1 AAD21086.1 BAB41020.1 BAA19659.1 BAB81018.1 AAB81683.1 CAA54610.1 SEQ ID NO. CAA12358.1 AAG13986.1	SEQ ID NO. AAA87182.1 SEQ ID NO. AAA870538.1 CAA65680.1 AAF26451.1 AAAF26451.1 AAAF26451.1 AAAF2651.1 AAA6694.1 CAA41946.1 CAA418621.1 AAAC63372.1 AABO5812.1 CAA91435.1 CAA91435.1 CAA51660.1	
Glycine max Oryza sativa Oryza sativa Oryza sativa Beta vulgaris Glycine max Vigna unguiculata Glycine max Ebtula pendula	Manihot esculenta Manihot esculenta Manihot esculenta Manihot esculenta Manihot esculenta Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Lycopersicon esculentum Sorghum bicolor Scutellaria baicalensis Nicotiana tabacum Petunia x hybrida Citrus unshiu Verbena x hybrida Solanum tuberosum Petunia x hybrida Petunia x hybrida Vitis vinifera Vitis vinifera Vitis vinifera Vitis vinifera Vitis vinifera Vitis vinifera	
AB007126 AB006188 AB026998 S66038 AB007127 X88802 AB00097 AJ279692 2606 X79677	2612 X77463 X77463 X77462 U32644 U32644 U32643 AF346431 X18871 AF346432 X85138 AF199453 AB031274 AF101972 AF105148	202
BAA77676.1 BAA21743.2 BAA77605.1 AAB28479.1 BAA77677.1 CAA61280.1 BAA25015.1 CAB66334.1 SEQ ID NO. 3	SEQ ID NO. CAA54609.1 CAA54613.1 CAA54612.1 AAB36653.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB36653.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB36652.1 AAB4844.1 BAA89009.1 BAA89009.1 BAA89009.1 BAA89009.1 BAA89009.1 BAA89009.1 BAA81023.1 BAB41023.1 BAB41025.1 BAB41026.1	DAM12/3/.1

		inifolia				ondriacus		0.00	ional tacus	···	æ		rs.	-	52	9										num tuberosum	E		Solanum tuberosum	•	crystallinum		E
Triticum aestivum Zea mays	•	Pisum sativum Nicotiana plumbaginifolia	Apium graveolens	Zea mays	Avicennia marina	Amaranthus hypochondriacus	Avicennia marina	Oryza sativa	Amaranthus nypochonoriacus	Spinacia oleracea	Spinacia oleracea	Bera Vulgaiis	Beta Vulgaris Atriplex hortensis	Nicotiana tabacum	Oryza sativa	Oryza sativa	Zea mays	Oryza sativa	Uryza sativa Hordenm vnlgare	Sorghum bicolor	Oryza sativa	Brassica napus	Oryza sativa	sordum precior		Chloroplast Solanum tuberosum	Solanum tuberosum	Fragaria vesca		Glycine max	Mesembryanthemum	Zea mays	dea mays Nicotiana tabacum
U86763 AE342809	2620	X75327	AF196292	X75326	AB043539	AF000132	AB043540	AB001348	AF017150	M31480	U69142	X58462	X58463 x69770	X09876	AF162665	AB044537	AF215823	AB037421	AB030939	1112196	AF045770	877096	AF323586	012195	2622	AF082891	AF144102	X17185	AF082892	AF141602	AF069317	AE007786	AF097180
AAD10495.1 AAK26848.1		CAA53076.1	AAE08296.1	CAA53075.1	BAB18543.1	AAB58165.1	BAB18544.1	BAA21098.1	AAB70010.1	AAA34025.1	AAB41696.1	CAA41376.1	CAA41377.1	CAA71003.1	AAE73828.1	BAB19052.1	AAG43988.1	BAA96794.1	BAA96793.1	BAA05466.1	AAC43206.1	AAB33843.1	AAG43027.1	AAC49267.1	ON OT OHS		AAD31520.2	CAB57356.1	AAF74982.1	AAD34548.1	AAC19395.1	AAB61348.1	AAB61347.1 AAD16143.1
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Phaseolus vulgaris Aerides japonica	Oryza sativa Orvza sativa		Oryza sativa	Horden wildere		Orvza satíva	Brassica oleracea	Zea mays	Prunus dulcis	Hordeum vulgare	Oryza sativa	Sorghum bicolor	Zea mays		becaise elements war botrotis	, α	Pyrus communis	Medicago truncatula	Lotus japonicus	Ø	Nicotiana tabacum	Zea mays	IIILICUM descryum Mesembryanthemum crystallinum	Zea mays	Tulipa gesneriana	Picea ables	Brassica Oleracea Var. Doctycts	Gossypium mirsucum	Helianthus annus		Vernicia iordi Helianthus annus		Helianthus annuus Zea mays
Phaseolus '	Oryza	Oryza				Arzunesis Capsicum americani prolitika Orvza sativa										, α				Medicago s	Nicotiana	61	U86/62 Ificicum descryum U43291 Mesembryanthemum crysta	00		78		Gossyptum		nerrantura Vornicia fo	3 2	02 Zea mays	Ø

Nicotiana tabacum	Nicotiana tabacum	Nicotiana tabacum		Lycopersicon esculentum		Nicotiana paniculata	Zea mays	Egeria densa	Samanea saman	Triticum aestivum	Populus tremula x Populus			Samanea saman	Solanum tuberosum		Oryza sativa	Mesembryanthemum crystall toum		Populus tremula x Populus						Sinapis alba		-	Fisum sacivum	Glycine max	Triticum aestivum		-	~	Nicotiana tabacum	Zea mays	Zea mays	Zea mays	Raphanus sativus
2626 AF079871	AF079872	U65390	X07632	X96390	X10579	AB032074	AJ132686	AJ225805	AF145272	AF207745	AJ271447		AF099095	AJ299019	87797X	AP002093	AP002092	AE267755	AJ249962	AJ271446			0000	2078	X84208	TOTAL	(2632	081289	L38856	U26918		2633	X70417	X54855	AF326502	AF326501	AF326503	AB010416
SEQ ID NO. 3	AAE33670.1	AAB53255.1	CAA68912.1	CAA65254.1	CAA71598.1	BAA84085.1	CAB54856.1	CAA12645.1	AAD39492.1	AAF36832.1	CAC05489.1	tremuloides	AAD16278.1	CAC10514.1	CAA56175.1	BAA96192.1	BAA96150.1	AAF81251.1	CAB62555.1	CAC05488.1	tremuloides				CAA58994.1	CAA/6116.1			AAB72115.1	AAA88792.1	AAA70363.1			CAA49854.1	CAA38634.1	AAK26769.1	AAK26768.1	AAK26770.1	BAA31452.1
Oryza sativa Oryza sativa	Chloroplast Solanum tuberosum	Cucumis melo			Orvza sativa	Orvza sativa	Mesembryanthemum crystallinum	Orvza sativa	Orva sativa	Aloe arborescens	Aloe arborescens	Ricinus communis	Populus balsamifera subsp.		Vitis vinifera	Vitis vinifera	Incopersion esculentum	Lycopersicon esculentum	Lycoperation esculentum	Floweria trinervia					Phaseolus vulgaris	Apium graveolens	Zea mays	Zea mays	Flaveria linearis	Solanum tuberosum	Solanum tuberosum	Amaranthus hypochondriacus	Mesembryanthemum crystallinum	Flaveria trinervia	Lycopersicon esculentum	Cucurbita pepo	Cicer arietinum	Cucurbita pepo	Flaveria bidentis
AF076495 AP002069	AF082890	AF206626		2624	AP002816	D16499	X64434	AP002836	AB053295	AB005808	AB016804	AF262997	X56233		1,34836	1167426	DF001269	1.27509	DE 1303	AE 0012 / 0	757/04	X / 8069	AJ224847	X80051	J03825	AJ132257	N39958	J05130	M59415	223023	223002	001162	AF097666	M59416	L35306	AF260735	AB025007	AF260732	U44922
AAG38873.1 BAA95820.1	BAA93830.1	AAE64422.1		SEO TO NO. 2		L 97650449	1.01650AAD	1.2//CPAC	1.100000000	1 0507044G	1.000242AG	DAF73006.1	CAA39690.1	e creo cho tra	paa67087.1	AAB08874 1	ו רכנספפגת	1.1210CAAA	AAAS41/4.1	AAB30/20.1	CAM#0421.1	CAA54986.1	CAA12157.1	CAA56354.1	AAA19575.1	CAB66003.1	AAD10504.1	AAA33487.1	AAB41026.1	CAA80559.1	CAA80547.1	AAA19014.1	AAD11429.1	AAB19243.1	AAA83963.1	AAG23801.1	BAA76435.1	AAG23798.1	AAB17593.1

Oryza sativa Lycopersicon esculentum Nicotiana tabacum Oryza sativa Oryza sativa Oryza sativa Oryza sativa Nicotiana tabacum Oryza sativa	Lycopersicon esculentum	Lycopersicon esculentum Lycopersicon esculentum	Brassica oleracea Zea mays		Brassica oleracea Brassica napus	Brassica napus subsp. napus Brassica napus		- 13	Brassica oleracea Brassica rapa	Brassica rapa	brassica oreracea Brassica rapa		Brassica rapa	Brassica Oleracea Brassica Oleracea		Brassica rapa	Oryza sativa
Y11351 X99210 AB028650 Y11414 D88619 Y15219 X96749 U72762	2642 U82558	2643 U82559 U82558	2644 Y12531 H82481	X98520 X14285	Y12530 U00443	AJ245479 M97667	AB032473	AB000970 U20948	M76647 D88193	D30049	Y18260 D38564	Y14286	AB054061	AB0324/4	218921	D38563	AF172282
CAA72186.1 CAA67600.1 BAA88222.1 CAA72217.1 BAA23339.1 CAA75509.1 CAA65525.1 AAB41101.1	SEQ ID NO. AAB41741.1	SEQ ID NO. AAB41742.1 AAB41741.1	SEQ ID NO. CAA73134.1	CAA67145.1 CAA67145.1 CAA74661.1	CAA73133.1	CAB89179.1	BAA92836.1	BAA23676.1 AAC23542.1	AAA33000.1 BAA21132.1	BAA06285.1	CAB41879.1	CAA74662.1	BAB21001.1	BAA92837.1	CAB418/8.1	BAA07576.1	AAF34428.1
Mesembryanthemum crystallinum Mesembryanthemum crystallinum Raphanus sativus Lotus japonicus Zea mays Zea mays Medicago truncatula Mesembryanthemum crystallinum Mesembryanthemum crystallinum	Citrus unshiu	Gossypium hirsutum Lycopersicon esculentum	Hordeum vulgare Hordeum vulgare Hordeum vulgare	Oryza sativa Oryza sativa	-		Gossypium hirsutum Gossypium hirsutum	Gossypium hirsutum pimpinella brachycarpa	Gossypium hirsutum	Petunia X nybilda Antirrhinum majus	Glycine max	Glycine max Glycine max	Nicotiana tabacum	Nicotiana tabacum	Zea mays	Zea mays Clucine max	Glycine max
AF133533 AF133532 D84669 AF275315 AF037061 AF326500 AJ251652 U43291	2635 AB027456	2636 AF336286 X95296	X70876 X70879 77087X	D88617 D88618	Y11415 AF336278	Z13996 X70880	AF336285 AF336283	AF336282	AF336284	213997 a.too6292	AB029161	AB029160	AB029139 AB028652	AB028649	M73028	AF210616	AB029165 AB029162
AAD31849.1 AAD31848.1 BAA12711.1 AAC09245.1 AAK26767.1 CAC01618.1 AAB17284.1	SEQ ID NO. 2 BAA77836.1	SEQ ID NO. 7 AAK19619.1	CAA50221.1 CAA50224.1 CAA50224.1	BAA23337.1 BAA23338.1	CAA72218.1 AAK19611.1	CAA78386.1 CAA50225.1	AAK19618.1 AAK19616.1	AAK19615.1	AAK19617.1 AAK19617.1	CAA78387.1	BAA81732.1	BAA81731.1	BAA81/30.1	BAA88221.1	AAA33500.1	AAG36774.1	BAA81736.1 BAA81733.2

U87982 Sorghum bicolor	Oryza		AB001348 Oryza sativa	23	X58463 Beta vulgaris	X58462 Beta vulgaris	M31480 Spinacia oleracea	U69142 Spinacia oleracea	AB030939 Oryza sativa	Y09876 Nicotiana tabacum	20	AB043540 Avicennia marina	AB043539 Avicennia marina	AF000132 Amaranthus hypochondriacus		Ţ	D26448 Hordeum vulgare	U12196 Sorghum bicolor	Zea mavs	0.5	AE04010	X 232 /	U8/848		01710		2649 	AJUL1623 Antirinum	AJ011621 Antirrhinum	AJ011622 Antirrhinum	X92369	089496	. X92079 Antirrhinum majus		2651	AC068924	6858/X	L46/UZ SOLAIIUIII CU	U52078	AF223412 Zea mays	l AB003037 Nicotiana tabacum
AAB47996.1	BAB19052.1	AAF73828.1	BAA21098.1	AAG43988.1	CAA41377.1	CAA41376.1	AAA34025.1	AAB41696.1	BAA96793.1	CAA71003.1	AAB70010.1	BAB18544.1	BAB18543.1	AAB58165.1	BAA96794.1	CAA49425.1	BAA05466.1	AAC49268.1	CD53075	1.0200744 1.03060744	AACOSOSS.	CAA53076.1	AAB47571.1	AAF08296.1	AAC4926/.1	1	SEQ ID NO.	CAB56570.1	CAB56568.1	CAB56569.1	CAA63113.1	AAB51071.1	CAA63061.1		SEQ ID NO.	AAG13527.1	CAA55326.1	AAB37/56.1	AAC49393.1	AAG13460.1	BAB40709.1
phaseolns vn]garis			Orvza sativa	sat				Hollanthus anning		Harran Chinas	Hordeum Vulgare	nordedun varyare	cargrams coops	notaeum vargare	מיסקרייו אחדקמים	nordeum vargare	notdeniii vurgare	Frunds darces	פדאכדוום ווומע	Zea mays	Hordeum vulgare	Elaeis guineensis	Hordeum vulgare	Lophopyrum elongatum	Hordeum vulgare	Helianthus annuus	Sorghum bicolor	Vitis riparia	Sorghum bicolor	Triticum turgidum subsp. durum	Hordeum vulgare	Hordeum vulgare			Brassica napus	44					
0808004	AF08885	AE00000	AF001800	1.27821	220734	AFOOTOO A	2646	1043 TACOOT 4	A00024	ACCIONA	AF181459	AE045034	10897Y	X15289	AE043088	AFIBIABI	AF043086	AE1/2263	Ar.004807	X15290	AF181452	AF043087	AF181451	X15288	AF043091	AF181456	AF236067	X71362	AF031248	X98326	X92647	111696	AF220407	U63831	X78429	AF155129	AF181453		2647	377096	AF323586
	AADZ16/2.1	AADJ2091.1	BAA94510.1	1.11055444	7.01.01.04.4.d				CAA05/13.1	CAAUS4ZI.I	AAF01697.1	AAD02260.1	CAASSIS4.I	CAA33363.1	AAD02254.1	AAF01699.1	AAD02252.1	AAD50291.1	AAB71225.1	CAA33364.1	AAF01690.1	AAD02253.1	AAF01689.1	CAA33362.1	AAD02257.1	AAF01694.1	AAF60172.1	CAA50499.1	AAC05922.1	Cab66970.1	CAA63339.1	1 5996144	PAF37268.1	AAB05927.1	CAA55192.1	AAD38400.1	AAF01691.1		SEO ID NO.	AAB33843.1	AAG43027.1

	533	tum tum subsp.
Phaseolus vulgaris Petunia x hybrida Bryonia dioica Bidens pilosa Oryza sativa Oryza sativa Zea mays Triticum aestivum Triticum aestivum Solanum tuberosum	Picea mariana Picea mariana Picea mariana Picea mariana	Spinacia oleracea Lycopersicon esculentum Arachis hypogaea Nicotiana tabacum Phaseolus vulgaris Stylosanthes humilis Glycine max Medicago sativa Lycopersicon esculentum Phaseolus vulgaris Armoracia rusticana Populus balsamifera sub Medicago sativa Medicago sativa Oryza sativa
AF030032 M80831 L14071 X89890 L18914 Z12828 Y13974 U48692 U48691 U20297 U20296 U20296 U20296 U20296 X65016 AF030034	2654 AF051216 AF051745 AF051744 AF051743	2656 X10468 X94943 M37637 AB027753 AF149279 L77080 AF145349 X90693 L13654 AF149277 X57564 X97351 X97351
AAD10244.1 AAA33705.1 AAA16320.1 CAA61980.1 AAA33900.1 CAA78288.1 CAA74307.1 AAC49582.1 AAA85156.1 AAA85156.1 AAA85156.1 AAA85155.1 CAA46150.1 AAB10246.1	SEQ ID NO. 3 AAC32120.1 AAC32164.1 AAC32163.1 AAC32162.1	SEQ ID NO. CAA71494.1 CAA64413.1 AAA32676.1 BAA82307.1 AAD37429.2 AAB67737.1 AAD37375.1 CAA62226.1 AAD37427.1 CAA66037.1 Lrichocarpa AAB41811.1 CAA62227.1 BAA08499.1
japonica		
Oryza sativa Oryza sativa Nicotiana tabacum Oryza sativa subsp. Nicotiana tabacum Nicotiana sativum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Petunia x hybrida Malus x domestica Lilium longiflorum Daucus carota Elaeis guineensis Prunus avium	Vigna radiata Triticum aestivum Vigna radiata Oryza sativa Capsicum annuum Hordeum vulgare Oryza sativa Capsicum annuum Oryza sativa Kapicum annuum Oryza sativa Kapicum annuum Oryza sativa Kapicum annuum Oryza sativa
APO02817 APO02744 ABO03038 AF210816 AB053094 AB053094 AB053093 AB053091 AB053090 AB053090 AB053090 AB053090 AB053089 U10150 U10150 U10150	M80836 X60738 212839 X59751 AE295637 AE292108	AECOSTION 120691 149105 149103 148699 148689 148242 212827 12827 12827 M27303 AP000969 AF108889 AF108889 AF103398
BAB03437.1 BAB19066.1 BAB40710.1 AAF78897.1 BAB40706.1 BAB40705.1 BAB40703.1 BAB40702.1 BAB40702.1 BAB40700.1 BAB40700.1 BAB40700.1	AAA33706.1 CAA43143.1 CAA78301.1 CAA42423.1 AAG27432.1	AACLIA18.1 AAA34237.1 AAC49586.1 AAC49586.1 AAC49580.1 AAC49579.1 AAC49579.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC49578.1 AAC4958.1 AAC36059.1 AAC36059.1 AAC36059.1

		Solanum tuberosum	Oryza sativa	Sorghum bicolor	Sorghum bicolor	Oryza sativa	Zea mays	Triticum aestivum	Oryza sativa	Nicotiana tabacum	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Glycine max	Mesembryanthemum crystallinum	Nicotiana tabacum	Vicia faba	Triticum aestivum	Craterostigma plantagineum	Chlamydomonas reinhardtii	Triticum aestivum			Gossvoium hirsutum	Glycine max				rapaver somittermin	יים וווסאס	Picea mariana	Zea mays	Zea mays	Zea mays	Aegilops tauschii	Zea mays	Zea mays		See mays		Zea mays
Y1.0036	X82548	X05996	AP002482	X12465	X12464	AB011968	AF141378	AB011670	AB011967	U73938	AC084763	AF004947	AB002109	D88399	L38855	226846	073939	AF186020	U29095	AJ005373	AF100162	M94726		2658	AF159229	DF243360	AE118925	AE110024	AE 110364	AF118926	Ar 244 / US	AF'051214	AF244699	AF244703	AF244687	AF004358	AF244692	AF244696	DE244707	A E C 4 4 / 0 /	Al' 244 / UZ	AF244695
CAA71142.1	CAA57898.1	CAA65243.1	BAA96628.1	CAA73068.1	CAA73067.1	BAA83689.1	AAF22219.1	BAA34675.1	BAA83688.1	AAD00239.1	AAG60195.1	AAB62693.1	BAA19573.1	BAA13608.1	AAB68962.1	CAA81443.1	AAD00240.1	AAF27340.1	AAB58348.1	CAA06503.1	AAC98509.1	AAA96325.1		SEO ID NO.		AMC34795 1	AAG04/20.1	AAE 22 3 10 . 1	AAE22317.1	AAE22519.1	AAG34848.1	AAC32118.1	AAG34842.1	AAG34846.1	AAG34830.1	AAD10129.1	AAG34835.1	AAG34839.1	1 03010244	AAG24630.1	AAG34845.1	AAG34838.1
Cucurbita pepo	Populus kitakamiensis	Asparaqus officinalis	Nicotiana tabacum	Spinacia oleracea	Toompoea batatas	Populus kitakamiensis	Nicotiana tabacum	Orvza sativa	Phaseolus vulgaris	Aninacia olemana		Spirodela polyrrhiza		Medicano sativa	Medicado sativa	Oryza sattiva	Orvza sativa	Nicotiana tabacum	Orvza sativa	Spinacia oleracea	Nicotiana tabacum	Thum usitatissimum	Organ satista		Oliver of the second and the second		Oryza sativa	Oryza sativa	Stylosanthes humilis			Hordeum vulgare	Lycopersicon esculentum	Nicotiana tabacum	Solanım tuberosum	Hordenm vilgare	Oryza gativa		טביים ממרדיים	Hordeum vulgare	Solanum tuberosum	Glycine max
X17192	D30653	AB042103		AF244924	A.T242742	11102	979CUT.	700710	DE14997	NE244021	AE007211	722920	1151192	136156	2010CX	n16442	DE01467	D42065	D15000	977917	047054	107100	071177	2007	077004	051191	AP001383	AF014469	L37790		2657	X65606	AF143743	026602	1183797	X65604	DE062479		000700	AJ007990	X95997	AF128443
Caa76680.1	Baa06335.1	BAA94962.1	1.2001044H	APE63027 1	1 73000 100	1.2026000	ו פטועצענע	1.001ECM#4	BAA03044.1	1.000/ave	AAE 03024.1	1.60500440	1.700.1044	AMDIT402.1	AMB41010.1	CAMO222.1	ר פופפאטייי	1.010650449		AAC43061.1	CAM/03/4.2	1.000/0444	1.5000 and	CAMAGOTO.1	CAMS948S. I	AAD11481.1	•	AAC49820.1	AAB02554.1		SEQ ID NO. 2	CAA46556.1	APF6639 1	BAA05649 1	L ACCCADA	L 62520000	ר פכבספראי	AAC33323.1	•	CAA07813.1	CAA65244.1	AAD23582.1

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Oryza sativa		Oryza sativa	Hordeum Vulgare					Hordeum vulgare	Sorghum bicolor	Oryza sativa	Hordeum vulgare	Lycopersicon esculentum	Solanum berthaultii	Hordeum vulgare	Lycopersicon pennellii	Solanum berthaultii	Solanum berthaultii	Matricaria chamomilla	Oryza sativa	Hordeum vulgare		Cicer arietinum	Oryza sativa	Oryza sativa	Vigna radiata	Vigna radiata				Mitochondrion Marchantia				Nicotiana tabacum	Detunia x hybrida		Sorgnum bicolor	Citrus unsuin	Verbena x hybrida	Brassica napus	
AC037197	2666	AP002539	Y0960Z	8/88/X	//88/X	AF061282	AF061282	X78876	AF061282	D17586	X09603	AF242849	AE006079	J03897	AF248647	AE006080	AE006078	AF141384	D10985	X09604	D17587	AJ271659	AP001633	AP002839	U49741	1149382	2.68130		2667	M68929			2668	2000 40300 404	AFLYCOUS	ADOK 1400	AF199453	AB033758	AB013598	AF287143	
AAG12476.1		BAB08188.1	CAA70815.1	CAB59202.1	CAA55478.1	AAD22150.1	AAD22151.1	CAB58992.1	AAD22164.1	BAA04510.1	CAA70816.1	DEF44708.1	AAD01264.1	1.05926 da	DDF64227.1	AAD01265.1	AAD01263.1	2 E9627044	BAA01757.1	CAA70817.1	BAA04511.1	CAB71127.1	BAA94235.1	RAB19126.1	AAA92064.1	1 20200444	Cana 22 3 2 2 1 5 1	1.01775000	SEO TO NO.		ARCONTIN.	portamortage	ON OT CHA	SEC ID NO.	AAF61647.1	BAA89009.1	AAF17077.1	BAA93039.1	BAA36423.1	AAF98390.1	
Picea mariana	Alopecurus myosurorus Zea mavs	plopecurus myosuroides	Zee mays	Glycine max			בייני כייני	פדאכדווה ווומע			Carica papaya	Zea mays	Glycine max	Euphorbia esula	Glycine max			Glycine max			Thalictrum Ilavum subsp.		Petroselinum crispum	Petroselinum crispum	Petroselinum crispum	Papaver somniferum						Papaver somniferum		Papaver somniferum	Camptotheca acuminata	Petroselinum crispum	Camptotheca acuminata	Catharanthus roseus	anthus.	Descriptions to case	rapaver somittermin
AF051238	AJ010449	AF244691	A501044 AF044690	2725777	ATO10450	00507000	Ar.244090	AF243362	AF244697	AF243374	AJ000923	AF244700	AF243372	AF239928	AF243366	AF243361	AE048978	AF243368		2663	AF314150		M96072	M96071		AF025435	M96070	AF025433	008597	008598	AF025434	AF025432	AF025431	016804	U73657	Makoka	7595CII	נים הים כיי	TCTCZM	799/9X	665800
AAC32139.1	CAA09188.1	AAG34834.1	CAAUSIB/.I	AAGS4033.1	AAG34/90.1	CARUSIOS.1	AAG34841.1	AAG34797.1	AAG34840.1	AAG34809.1	CAA04391.1	AAG34843.1	AAG34807.1	AAF64450.1	AAG34801.1	AAG34796.1	AAC18566.1	AAG34803.1		ö	AAG60665.1	glancum	AAA33862.1		AAA33863.1	AAC61844.1	AAA33860.1	AAC61842.1	AAA62346.1	AAA62347.1	AAC61843.1	AAC61841.1	AAC61840.1	1 7537 24	ABR39709.1	1 03000444	AAA33033.1	AABS9/00.1	AAA33109.1	CAA47898.1	AAA62348.1

Eustoma grandiflorum Pelargonium x hortorum Eschscholzia californica Solanum melongena Eschscholzia californica Gentiana triflora Papaver somniferum	Vigna radiata Petunia x hybrida Gentiana triflora Oryza sativa Gentiana triflora Perilla frutescens Fragaria x ananassa	Brassica oleracea Oryza sativa Lycopersicon esculentum Lycopersicon esculentum Nicotiana tabacum Oryza sativa Oryza sativa Chlamydomonas eugametos	Ipomoea batatas Dunaliella tertiolecta Oryza sativa Oryza sativa Nicotiana tabacum Sorghum bicolor Oryza sativa Zea mays Mesembryanthemum crystallinum Zea mays Zea mays Oryza sativa
D14589 AF315465 AF014800 X71657 AF014801 D85184 AF191772	2672 U06047 2673 AB026495 AB010708 AP002480 AB026494 AB029340 AF193789	2674 AF180356 AP001550 AF203481 AF203480 D26601 AF194413 AF194414	D87707 AF216527 AP000615 AF048691 U73937 Y12464 X81393 AF239819 AF090835 X61387 AE271237 AB036788
BAA03439.1 AAG49315.1 AAC39452.1 CAA50648.1 AAC39453.1 BAA12735.1	SEQ ID NO. 3AC48922.1 SEQ ID NO. BAA93453.1 BAA74428.1 BAA96577.1 BAA93452.1 BAA93452.1 BAA93475.1		BAA13440.1 AAF21062.1 BAA85396.1 AAC04324.1 CAA73067.1 CAA73067.1 CAA36872.1 AAD17800.1 CAA43659.1 AAF76187.1 BAB21591.1 BAB21599.1
		Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Ipomoea batatas Manihot esculenta Petunia x hybrida Manihot esculenta	Petunia x hybrida Torenia hybrida Petunia x hybrida Petunia x hybrida Petunia x hybrida Catharanthus roseus Callistephus chinensis Lycianthes rantonnei Solanum melongena Campanula medium Petunia x hybrida Eustoma grandiflorum
AB013596 AB013597 D85186 AB047097 AB047093 AB047093	AF127218 AB047098 AB047096 AB047094 AB047091 AF000371 AF000371 AB047090 AB042367	U32643 AF346432 U32644 AF346431 AB038248 X77462 AB027454	AF155332 AB012925 222545 D14588 AF011862 AF313499 AF313490 X70824 D14590 Z22544 U72654
BAA36421.1 BAA36422.1 BAA12737.1 BAB41024.1 BAB41026.1 BAB41020.1	AAD21086.1 BAB41025.1 BAB41023.1 BAB41021.1 BAB41019.1 BAB81683.1 AAB81682.1 BAB41017.1 BAA19659.1	AAB36652.1 AAK28304.1 AAB36653.1 AAK28303.1 BAA90787.1 CAA54612.1 BAA89008.1 CAA54614.1	

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	Zea mays Zea mays	Zea mays	Zea mays Dioca mariana	700 mattand	Alonecurus myosuroides			Alopecurus myosuroides	Zea mays	Zea mays	Zea mays	Gossypium hirsutum	Glycine max	Glycine max	Glycine max	Glycine max	Zea mays	Glycine max	Glycine max		Cichorium intybus x Cichorium		Lycopersicon esculentum	Glycine max	Glycine max		Pisum sativum	Nicotiana sylvestris	Vigna radiata	Spinacia oleracea	Zea mays	Oryza sativa	Oryza sativa	•		Triticum aestivum	
AF244705 AF244696	AF244703 AF244695	AF244702	AF244692	AEUS1238	Ar 244690	AJ010450	AF244700	AJ010448	AF244691	AF244698	AE244697	AF064201	AF243362	AF048978	AF243374	AF243365	AF244701	Y10820	AF243375	AF243363	AJ296343		AF193439	AF243370	AF243372	2677	AF271892	D16247	AF156667	X99937	AF079782	AB042644	AB042643		2678	AF123609	
AAG34848.1 AAG34839.1	AAG34846.1 AAG34838.1	AAG34845.1	AAG34835.1	AAC32139.1	AAG34833.1	CAAUSIBB.I	CAROS103.1	Ca409187.1	AAG34834.1	AAG34841.1	AAG34840.1	AAC16555.1	AAG34797.1	AAC18566.1	AAG34809.1	AAG34800.1	AAG34844.1	CAA71784.1	AAG34810.1	AAG34798.1	CAC24549.1	endivia	AAF22647.1	AAG34805.1	AAG34807.1	SEO ID NO.	AAE75791.1	BAA03763.1	AAF40306.1	CAA68193.1	AAD20980.1	RAA95705.1	RA495704.1		SEO TD NO.	ABG17470.1	
Zea mays	Solanum tuberosum	Oryza sativa Glucine max	Daucus carota	Zea mays	Zea mays	Zea mays	Solanum tuberosum	Oryza sativa	Glycine max	Oryza sativa	Oryza sativa	Nicotiana tabacum	Mesembryantnemum crystarrium	Oryza saciva	Zea mays		miniliatery of mimodatery	Mesembryantnemum crystarrium	Nicotiana tabacum	Solanum tuberosum	Zea mays	Zea mays	Apium graveolens	picinia communis	Prunus dulcis			Gossypium nirsurum			papaver somitterum	crycine man	Zea mays		Aegilops tauschil	Zea mays	Picea mariana
X11649	X11526 X95997	AC073166	0691.4 X56599	A.T007366	D84408	D87042	AF115406	AE062479	u69173	X81394	D13436	D26602	AF234652	055768	L15390		2675	016021	X70651	AF047842	M80912	233611	AJ132256	ACCO4915	x75020		2676	AF159229	AF118925	AF118924	AF118926	AF243360	AF244707	AF244699	AF004358	AF244687	AF051214
CAA72362.1	CAA72290.1 CAA65244.1	AAG46110.1	AAB80693.1	CAA39930.1	CAMO/1901.1	BAA13232.1	AAD28192.2	AAC99329.1	AAB80692.1	CAA57157.1	BAA02698.1	BAA05649.1	AAF40430.1	AAB05457.1	AAA33443.1			AAA86979.1	CAA49994.1	AAD24857.1	AAA33499.1	CAA83914.1	CAB66002.1	CAA06215.1	CAA49995.1 CAA52928.1			AAF29773.1	AAF22518.1	AAF22517.1	AAF22519.1	AAG34795.1	AAG34850.1	AAG34842.1	AAD10129.1	AAG34830.1	AAC32118.1

Eschscholzia californica Berberis stolonifera		Faconyrim escillentim			Triticum turgidum subsp. d		Brassica napus	Brassica rapa	Orwa sativa				Picea mariana	Brassica oleracea var.		Brassica napus	Ricinus communis	Nicotlana tabacum		Hordeum bulbosum	Secale cereale	Phalaris coerulescens	Phalaris coerulescens	Hevea brasiliensis	Lolium perenne	Secale cereale	Chlamydomonas reinhardtii	Chlamydomonas reinhardtii	Mesembryanthemum crystallınum	Pisum sativum	Brassica napus	Pisum sativum	Brassica napus	Brassica napus	Spinacia oleracea	Spinacia oleracea	Spinacia oleracea	Pisum sativum	Oryza sativa	
AF005655 AF049347	2688	780784	D67304	AF286593	AJ001903	X58527	1159379	DE01044	721036	021000	U92541	026547	AF051206	AF273844		059380	L10677	Z11803	AP002912	AF159385	AF159386	AF159389	AF159388	AF133127	AF159387	AF186240	X80887	X78822	AF069314	X76269	AF018174	U35831	U76831	AF160870	X14959	X51463	X51462	X63537	AJ005841	
AAC39358.1 AAD17487.1	ON OF CHE	25.74 1	BAA13324.1	AAF88067.1	CAA05081 1	CAA41415.1	1 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ו וסאפריים	1.10000.red	BAAU4804.1	AAB51522.1	BAA05546.1	AAC32111.1	AAG35777.1	alboglabra	AAB53695.1	CAA94534.1	CAA77847.1	BAB39913.1	AAD49230.1	AAD49231.1	AAD49234.1	AAD49233.1	AAD33596.1	AAD49232.1	AAD56954.1	CAA56850.1	CAA55399.1	AAC19392.1	CAA53900.1	AAC04671.1	AAC49358.1	AAB52409.1	AAD45358.1	CAA33082.1	CAA35827.1	CAA35826.1	CAA45098.1	CAA06736.1	
Brassica rapa subsp. pekinensis vicia sativa		Catharanthus roseus	Glycine max	Pisum sativum Potunia v bubrida	recuire a lightica	Nepera racemosa	Solanum melongena		Glycyrrhiza echinata		Glycyrrhiga echinata	Glycine max	Torenia hvbrida	Glycine max	Catharanthus roseus			Spem eas	Ivcopersion esculentum				Diam sativim	Clycho max	adjantum capillus-veneris			Viona radiata	Nicotiana svlvestris	Diam sativim	Apinalia Oleranea			Orvza sativa				Danaver somniferum	Eschscholzia californica	
AY029178	AE030260	AJ238402	AF022457	249263	AF15555	Y09423	X70824	M32885	AB001380	AF022459	AB022733	AF022463	DR028152	D83968	1.19074		2030	734465	23403 pr159296	ne159293	7777	7830	80557614	000000000000000000000000000000000000000	704/05 70/7/68	2004	2685	AF156667	D1 6247	75271892	AE2/1032	0000000	AFO/9/02	F5075004	0107400A	AC004610	רפאנ	2007 NF025430	S65550)
AAK31592.1	AAD10204.1	CAB41474.1	AAB94586.1	CAA89260.1	AAD56282.1	CAA70575.1	CAA50155.1	AAA32913.1	BAA22423.1	AAB94588.1	BAA74466.1	DAR94592.1	1 67070440	1.2101040 1 010144	1 25771444	•		SEC ID NO.	CAM64230.1	1.67653044	AADJJ300.1	ON CIT		CAD43032.1	CAM204/1.1	T./CFZTGWG	ON OT CAS		1.00001440	בינטינטרשנה א	AAE /3/91.1	CAR06193.1	AADZUYBU.I	BAASS/03.1	1.50/06/94.	AA648833.1		SEC ID NO.	AAC61639.1	

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Solanum tuberosum Oryza sativa Manihot esculenta Manihot esculenta	Dorotheanthus bellidiformi: Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Sorghum bicolor Petunia x hybrida Lycopersicon esculentum Scutellaria baicalensis Brassica napus	Verbena x hybrida Phaseolus lunatus Vitis vinifera Vitis vinifera Vitis vinifera Vitis vinifera Forsythia x intermedia Vitis labrusca x Vitis Vitis vinifera Vitis vinifera Vitis vinifera Vitis vinifera	Vitis vinifera Vitis vinifera Vitis labrusca x Viti Citrus unshiu Trifolium repens Medicago sativa Medicago sativa Spinacia oleracea					
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	CAA54613.1 CAB56231.1 AAB36653.1 AAK28303.1 AAF61647.1 AAB36652.1 AAF17077.1 BAA89009.1 CAA59450.1	BAA36423.1 AAD04166.1 BAB41021.1 BAB41023.1 BAB41013.1 BAB41019.1 AAD21086.1 BAB41017.1 BAB41026.1 BAB41026.1	BAB41020.1 AAB81683.1 BAB41018.1 BAA93039.1 SEQ ID NO. CAA62228.1 AAB41812.1 CAA71495.1					
Pisum sativum Chlamydomonas reinhardtii Chlamydomonas reinhardtii Chlamydomonas reinhardtii Triticum aestivum Chlamydomonas reinhardtii	Lycopersicon pennellii Solanum berthaultii Solanum berthaultii Solanum berthaultii Hordeum vulgare Oryza sativa Lycopersicon esculentum Hordeum vulgare Hordeum vulgare		Sorghum blcolor Vigna radiata Vigna radiata Pisum sativum Citrus x paradisi Ricinus communis Solanum tuberosum Ricinus communis Citrus x paradisi					
U35830 X80888 X78821 X62335 AJ005840 U43609	2689 AF248647 AF006079 AF006078 AF006080 Y09603 D17586 AF242849 J03897 X78878 X78877		AF061282 U49382 U49741 268130 2691 AF095521 232849 M55190 232850 AF095520					
AAC49357.1 CAA56851.1 CAA55398.1 CAA44209.1 CAA06735.1 AAB03681.1		BABUSISS.1 CAA70815.1 AAD22150.1 AAD42963.2 CAA70817.1 BAA04511.1 BAA01757.1 AAD22151.1 CAB58992.1 BAA94235.1 CAB71127.1	AAD22164.1 AAA92062.1 AAA92064.1 CAA92216.1 SEQ ID NO. AAC67587.1 CAA83682.1 AAA63451.1 CAA83683.1					

THE TAREST A SECONDICTION OF THE SECONDICTION	CAR46916.1 X66125 Oryza sativa	AAB32676.1 M37637 Arachis hypogaea		SEO ID NO. 2694				Opening Medicada	Account to Medical	A80/00 Medicago Satatra carafri	293768	_	BAA92244.1 AB038648 Vicia faba	AAA33545.1 M60215 Zea mays		CAA07470.1 AJ007332 Catharanthus roseus	AAD38856.1 AF156101 Chlamydomonas reinhardtii	Carny 1 293769 Nicotiana tabacum	x63558	2.28627	n TOO2488 Medicado sativa	20000	228632 Acetabularia cirredita	293770 Nicotiana tabacum		AJ007496	226654 Acetabularia clifton	AF134552 Oryza	AB039917	16 Vicia faba		BAA92699.1 AB039918 Vicia faba	CAA49849.1 X70399 Medicago sativa		Cabanger, 1 X57439 Brassica napus		726041	Hevea brasi	FOF/OTIW	AFC03000 OLYCO SOLIVE	AAC/2838.1 AFU9/182 OLYZA SALIVA	CAA07471.1 AJ007333 Catharanthus roseus
		פדילכדוום ווומט	Glycine max	Glycine max	Scureriaria Darcarensis	Glycine max	Medicago sariva	Glycine max	Zea mays	Lycopersicon esculentum	Nicotiana tabacum	Detroselinum crisbum	phospolus mildaria	Timosocius varyants	Timonoration pacinima		Oryza saciva	nycoperation eachtenicum		Spinacia oleracea	Nicotiana tabacum	Vigna angularis	Orvza sativa	Orvza sativa			pinne and meetric	בייים מיינייים כיינייים כיינייים כיינייים	Modicing and			Donning bitakaniangis	Fobutus Attansmists		Araciira ilybogaca	Gossyplum nirsulum	Oryza sativa	Hordeum vulgare	Stylosanthes humilis	u	Medicago sativa	פעם זווטאמ
		AAD11482.1	AAD11481.1	AAD11483.1	BAA77387.1	AAD11484.1	CAA62226.1	AAC98519.1	CAC21393.1	1 7585444	ויייטטטעאר	DAMO / 004 . 1	AAAS84SI.I	AAD37427.1	CAB6/121.1	AAA65636.1	BAA03644.1	CAA50597.1	AAB41811.1	AAF63024.1	BAA07663.1	BAR01950.1	ANERS464 2	•	BAAU8499.1	CAA/1496.1	CAB94692.1	AAG02215.1	AAD3/3/6.1	CAA62227.1	CAA/1488.1	CAA71492.1	BAA01877.1	CAA76374.2	AAB06183.1	AAD43561.1	AAC49819.1	CAA05897.1	AAB67737.1	BAA03911.1	CAA62225.1	CAA74203.1

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Petroselinum crispum Matricaria chamomilla Lycopersicon esculentum Catharanthus roseus Nicotiana tabacum	Brassica napus Brassica napus Phaseolus vulgaris Fragaria x ananassa Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Triticum aestivum Asparagus officinalis Cuscuta reflexa	culentum culentum us ris olanum tubo ea ea einhardtii ea ea ica ca ca da
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	AAF78903.1 AAC60566.1 AAC49369.1 AAD01800.1 BAA13150.1 BAB16428.1 BAA13155.1 AAB18205.1 CAA57810.1	CAA42959.1 CAA42959.1 CAA4366.1 CAA52149.1 AAC03416.1 CAA47345.1 AAC0559.2 AAA33637.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 AAB91472.1 CAA65356.1 AAB91472.1 AAB91472.1 CAA67367.1 CAB72128.1
Malus x domestica Fagus sylvatica Malus x domestica Malus x domestica Vicia faba Vicia faba Vicia faba	Glycine max Pisum sativum Glycine max Pisum sativum Pisum sativum Glycine max	Cucumis sativus Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Pimpinella brachycarpa Petroselinum crispum Nicotiana tabacum Avena fatua Nicotiana tabacum Oryza sativa Petroselinum crispum Nicotiana tabacum Nicotiana tabacum Petroselinum crispum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Avena fatua Betula pendula Petroselinum crispum Nicotiana tabacum Nicotiana tabacum
247076 AJ298828 Z47078 Z47077 AB038786 AB038787 AB038791	2695 J03919 X68215 J03920 X68216 X68217 X68218 AF169830	2696 L44134 AF096299 AB020690 AF026890 AF080595 AF121353 U48831 AF096298 AF193802 U58540 AF204925 AB020023 AB041520 Z48431 AJ279697 U56834 AF204926 AF1933771 AF1933771
CAA87385.1 CAC11128.1 CAA87387.1 CAA87386.1 BAA92333.1 BAA92334.1 BAA92338.1		SEQ ID NO. 3 AAC37515.1 AAD16139.1 BAA86031.1 AAC31956.1 AAC31956.1 AAC31956.1 AAC49527.1 BAA82107.1 CAA88326.1 AAF23898.1 AAF23898.1 AAC49529.1 AAC49529.1 BAB16432.1 CAA88331.1 CAA88331.1 CAA86338.1 AAC49528.1 AAC49528.1

Triticum aestivum	Spinacia oleracea	Glycine max	Lycopersicon esculentum	Brassica napus	Cucumis sativus	Malus x domestica	Cucumis sativus	Oryza sativa	Spinacia oleracea	Spinacia oleracea	Spinacia oleracea	Spinacia oleracea
AF005993	AE034618	X62799	X54030	AF035414	AJ249331	AF161180	AJ249330	x67711	AF034617	AF034616	AF033852	x61491
AAB99745.1	AAB88134.1	CAA44620.1	CAA37971.1	AAB88009.1	CAB72130.1	AAE34134.1	CAB72129.1	CAA47948.1	AAB88133.1	AAB88132.1	AAB97316.1	1 11757447

What is claimed is:

- 1. A method of identifying a stress condition to which a plant cell has been exposed, the method comprising:
 - a) contacting nucleic acid molecules representative of expressed polynucleotides in the plant cell with an array of probes representative of the plant cell genome; and
 - b) detecting a profile of expressed polynucleotides in the plant cell characteristic of a stress response, thereby identifying the stress condition to which the plant cell was exposed.

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- 2. The method of claim 1, wherein the stress condition is an abiotic stress condition.
- 3. The method of claim 2, wherein the abiotic stress is a cold stress condition, an osmotic stress condition, a saline stress condition, or a combination thereof.
 - 4. The method of claim 1, wherein the profile is characteristic of exposure to a single stress condition.
- 5. The method of claim 1, wherein the profile is characteristic of a cold stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, and 814-1261.
 - 6. The method of claim 1, wherein the profile is characteristic of a cold stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1-1261.
- 7. The method of claim 1, wherein the profile is characteristic of an osmotic stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2428-2585.

544

- 8. The method of claim 1, wherein the profile is characteristic of a saline stress response, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2227-2427.
- 5 9. The method of claim 2, wherein the profile is characteristic of exposure to at least two abiotic stress conditions.
 - 10. The method of claim 9, wherein the abiotic stress conditions are cold and osmotic stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927, and 1929-1969.
 - 11. The method of claim 9, wherein the abiotic stress conditions are cold and osmotic stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1699-1969.
 - 12. The method of claim 9, wherein the abiotic stress conditions are cold and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1970-2226.

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- 13. The method of claim 9, wherein the abiotic stress conditions are osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:2586-2703.
- 25 14. The method of claim 9, wherein the abiotic stress conditions are cold, osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, and 1634-1698.
- 30 15. The method of claim 9, wherein the abiotic stress conditions are cold, osmotic and saline stress conditions, and wherein the expressed polynucleotides comprise one or a plurality of SEQ ID NOS:1262-1698.

16. The method of claim 1, wherein the nucleic acid molecules representative of expressed polynucleotides in the plant cell are RNA molecules or cDNA molecules.

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- 17. The method of claim 1, wherein the array of probes representative of the plant cell genome is immobilized on a microchip.
- 18. A method for determining whether a test plant has been exposed to an abiotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a plant stress-regulated gene, provided said gene does not comprise a nucleotide sequence of a polynucleotide as set forth in any of SEQ ID NOS:156, 229, 233, 558, 573, 606, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918 or 1928, or a nucleotide sequence complementary thereto,

whereby

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detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to an abiotic stress,

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indicates that the test plant has been exposed to an abiotic stress, and whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to an abiotic stress.

- 19. The method of claim 18, wherein the abiotic stress is cold stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261 or a nucleotide sequence complementary thereto.
- 20. The method of claim 18, wherein the abiotic stress is saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 or a nucleotide sequence complementary thereto.
- 21. The method of claim 18, wherein the abiotic stress is osmotic stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in two or more of SEQ ID NOS:2428-2585 or a nucleotide sequence complementary thereto.
- 22. A method for determining whether a test plant has been exposed to a cold stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, or a nucleotide sequence complementary thereto,

whereby

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detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress,

indicates that the test plant has been exposed to a cold stress, and

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whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress.

23. A method for determining whether a test plant has been exposed to a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a saline stress,

indicates that the test plant has been exposed to a saline stress, and whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a saline stress.

24. A method for determining whether a test plant has been exposed to an osmotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in two or more of SEQ ID NOS:2428-2585, or a nucleotide sequence complementary thereto,

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whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to an osmotic stress,

indicates that the test plant has been exposed to an osmotic stress, and whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to an osmotic stress.

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25. A method for determining whether a test plant has been exposed to a combination of abiotic stress conditions, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a combination of stress conditions,

indicates that the test plant has been exposed to a combination of abiotic stress conditions, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a combination of abiotic stress conditions.

26. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of a cold stress and an osmotic stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1699-1969, or a nucleotide sequence complementary thereto.

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27. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of a cold stress and a saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1970-2226, or a nucleotide sequence complementary thereto.

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28. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of an osmotic stress and a saline stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEO ID NOS:2586-2703, or a nucleotide sequence complementary thereto.

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- 29. The method of claim 25, wherein the combination of abiotic stress conditions is a combination of a cold stress, a saline stress and an osmotic stress, and wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1262-1698, or a nucleotide sequence complementary thereto.
- 30. A method for determining whether a test plant has been exposed to a cold stress and an osmotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1699-1969, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress and an osmotic stress,

indicates that the test plant has been exposed to a cold stress and an osmotic stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress and an osmotic stress.

31. A method for determining whether a test plant has been exposed to a cold stress and a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1970-2226, or a nucleotide sequence complementary thereto,

whereby

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detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress and a saline stress,

indicates that the test plant has been exposed to a cold stress and a saline stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress and a saline stress.

- 32. A method for determining whether a test plant has been exposed to an osmotic stress and a saline stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in the test plant with at least one nucleic acid probe under conditions suitable for selective hybridization to a complementary nucleotide sequence,
- wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2586-2703, or a nucleotide sequence complementary thereto,

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whereby

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detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to an osmotic stress and a saline stress,

indicates that the test plant has been exposed to an osmotic stress and a saline stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to an osmotic stress and a saline stress.

33. A method for determining whether a test plant has been exposed to a cold stress, a saline stress and an osmotic stress, the method comprising contacting nucleic acid molecules representative of expressed polynucleotides in cells of the test plant with a plurality of nucleic acid probes under conditions suitable for selective hybridization to a complementary nucleotide sequence,

wherein the probe comprises at least 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1262-1698, or a nucleotide sequence complementary thereto,

whereby

detecting selective hybridization of at least one nucleic acid probe, or detecting a change in a level of selective hybridization as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have been exposed to a cold stress, a saline stress, and an osmotic stress,

indicates that the test plant has been exposed to a cold stress, a saline stress and an osmotic stress, and

whereby an absence of selective hybridization of at least one nucleic acid probe indicates that the test plant has not been exposed to a cold stress, a saline stress and an osmotic stress.

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34. A method for determining whether a test plant has been exposed to a cold stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, and 814-1261 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has been exposed to a cold stress, or wherein

detecting a level of expression that is less than at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

detecting a level of expression that is at least two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has not been exposed to a cold stress.

35. A method for determining whether a test plant has been exposed to a saline stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2226-2427 in cells of the test plant,

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wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress, or

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress,

indicates the test plant has been exposed to a saline stress, or wherein

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress,

indicates the test plant has not been exposed to a saline stress.

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36. A method for determining whether a test plant has been exposed to an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2428-2585 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to an osmotic stress, or

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to an osmotic stress,

indicates the test plant has been exposed to a osmotic stress, or

wherein

detecting a level of expression that is less than about two-fold different from level of expression of the at least one polynucleotide in cells of a plant not exposed to an osmotic stress, or

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detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to an osmotic stress,

indicates the test plant has not been exposed to a osmotic stress.

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37. A method for determining whether a test plant has been exposed to a cold stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1699-1969 in cells of the test plant,

wherein

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detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and an osmotic stress, or

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and an osmotic stress,

indicates the test plant has been exposed to a cold stress and an osmotic stress, or

wherein

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detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and an osmotic stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and an osmotic stress,

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indicates the test plant has not been exposed to a cold stress and an osmotic stress.

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38. A method for determining whether a test plant has been exposed to a cold stress and a saline stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1970-2226 in cells of the test plant,

wherein

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detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and a saline stress, or

detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and a saline stress,

indicates the test plant has been exposed to a cold stress and a saline stress, or

wherein

detecting a level of expression that is less than about two-fold different from as a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress and a saline stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress and a saline stress,

indicates the test plant has not been exposed to a cold stress and a saline stress.

39. A method for determining whether a test plant has been exposed to a saline stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:2586-2703 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress and an osmotic stress, or WO 2002/016655

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a saline stress and an osmotic stress,

indicates the test plant has been exposed to a saline stress and an osmotic stress, or

wherein

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a saline stress and an osmotic stress, or

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detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to saline stress and an osmotic stress,

indicates the test plant has not been exposed to a saline stress and an osmotic stress.

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40. A method for determining whether a test plant has been exposed to a cold stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth SEQ ID NOS:1-155, 157-229, 230-232, 234-557, 559-572, 574-605, 607-634, 636-634, 636-786, 788-812, and 814-1261 in cells of the test plant,

wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress,

indicates the test plant has been exposed to a cold stress, or wherein

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, or

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detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress.

indicates the test plant has not been exposed to a cold stress.

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41. A method for determining whether a test plant has been exposed to a cold stress, a saline stress and an osmotic stress, the method comprising detecting a level of expression of at least one polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NOS:1262-1698 in cells of the test plant,

10 wherein

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, a saline stress and an osmotic stress, or

detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress, a saline stress and an osmotic stress,

indicates the test plant has been exposed to a cold stress, a saline stress and an osmotic stress, or wherein

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detecting a level of expression that is less than about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant not exposed to a cold stress, a saline stress and an osmotic stress, or

detecting a level of expression that is at least about two-fold different from a level of expression of the at least one polynucleotide in cells of a plant known to be exposed to a cold stress, a saline stress and an osmotic stress,

indicates the test plant has not been exposed to a cold stress, a saline stress and an osmotic stress.

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42. A method of producing a transgenic plant comprising plant cells that exhibit altered responsiveness to at least one stress condition, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into a plant cell genome, wherein the polynucleotide portion of the stress-regulated gene does not comprise a nucleotide sequence as set forth in any of SEQ ID NOS:156, 229, 233, 558, 573, 606, 635, 787, 813, 1263, 1386, 1391, 1405, 1445, 1484, 1589, 1609, 1634, 1726, 1866, 1918 or 1928, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cells to at least one stress condition, thereby producing a transgenic plant comprising plant cells that exhibit altered responsiveness to the stress condition.

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- 43. The method of claim 42, wherein the stress condition is cold stress, and wherein the polynucleotide portion of a plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, 2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.
- 44. The method of claim 42, wherein the stress condition is saline stress, and wherein the polynucleotide portion of a plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 and 4910-5107.
 - 45. The method of claim 42, wherein the stress condition is osmotic stress, and wherein the polynucleotide portion of a plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2428-2585 and 5108-5263.

- 46. A method of producing a transgenic plant comprising plant cells that exhibit altered responsiveness to a combination of at least two stress conditions, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into a plant cell genome, whereby the polynucleotide portion of the plant stress-regulated gene modulates a response of the plant cells to a combination of at least two stress conditions, thereby producing a transgenic plant comprising plant cells that exhibit altered responsiveness to the stress conditions.
- 47. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and osmotic stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1669-1969 and 4389-4654.
- 48. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and osmotic stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927, 1929-1969, 4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.

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49. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1970-2226 and4655-4909.

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50. The method of claim 46, wherein the combination of at least two stress conditions is a combination of osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:2586-2703 and 5264-5379.

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51. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1262-1698 and 3956-4388.

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- 52. The method of claim 46, wherein the combination of at least two stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the polynucleotide portion of the plant stress-regulate gene comprises a nucleotide sequences as set forth in any of SEQ ID NOS:1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1698, 3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.
- 53. The method of any of claim 42 to 52, wherein the polynucleotide portion of the plant stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof.
 - 54. The method of claim 53, wherein the stress-regulated polypeptide or functional peptide portion thereof increases the stress tolerance of the transgenic plant.
 - 55. The method of claim 53, wherein the stress-regulated polypeptide or functional peptide portion thereof decreases the stress tolerance of the transgenic plant.

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- 56. The method of claim 53, wherein the polynucleotide portion of the plant stress-regulated gene is operatively linked to a heterologous promoter.
- 57. The method of any of claim 42 to 52, wherein the polynucleotide portion of the plant stress-regulated gene comprises a stress-regulated regulatory element.

- 58. The method of claim 57, wherein, upon introducing the stress-regulated regulatory element into the plant cell, the regulatory element integrates into the plant cell genome in a site-specific manner.
- 59. The method of claim 58, wherein, upon integrating into the plant cell genome, the regulatory element is operatively linked to a heterologous nucleotide sequence, which can be expressed in response to a stress condition specific for the regulatory element.
- 60. The method of claim 57, wherein the plant stress-regulated regulatory element is a mutant regulatory element, which is not responsive to the stress condition, whereby upon integrating into the plant cell genome, the mutant regulatory element disrupts an endogenous stress-regulated regulatory element of a plant stress-regulated gene, thereby altering the responsiveness of the plant stress-regulated gene to the stress condition.
 - 61. The method of any of claim 42 to 60, wherein the stress an abiotic stress.
- 62. The method of claim 61, wherein the abiotic stress is selected from the group consisting of an abnormal level of cold, osmotic pressure, salinity, and a combination thereof.
 - 63. The method of claim 57, wherein the stress-regulated regulatory element is operatively linked to a polynucleotide encoding a detectable marker.
 - 64. A transgenic plant produced by the method of any of claims 42 to 63.
 - 65. A plant cell from the transgenic plant of claim 64, wherein said plant cell exhibits altered responsiveness to the stress condition or stress conditions.
 - 66. A seed produced by the transgenic plant of claim 64.

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- 67. A cDNA or genomic DNA library prepared from the transgenic plant of claim 64, or from a plant cell from said transgenic plant, wherein said plant cell exhibits altered responsiveness to the stress condition.
- 68. A method for monitoring a population of plants for exposure to a stress condition or combination of stress conditions, the method comprising:
 - a) introducing into the population of a plants a sentinel plant, wherein said sentinel plant is a transgenic plant of claim 64, which comprises plant cells containing a stress-regulated regulatory element is operatively linked to a polynucleotide encoding a detectable marker; and
 - b) examining the sentinel plant for expression of the detectable marker, which is indicative of exposure of the population of plants to a stress condition or combination of stress conditions,
- thereby monitoring the population of plants for exposure to a stress condition or combination of stress conditions.
 - 69. The method of claim 68, wherein said stress condition or combination of stress conditions is an abiotic stress condition or combination of abiotic stress conditions.

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- 70. The method of claim 68 or 69, wherein said stress condition or combination of stress conditions is cold stress, osmotic stress, saline stress, and a combination thereof.
- 71. The method of any of claims 63 to 70, wherein the stress condition is a cold stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-3955.

72. The method of any of claims 68 to 70, wherein the stress condition is a cold stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.

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73. The method of any of claims 68 to 70, wherein the stress condition is a saline stress condition, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4910-5107.

74. The method of any of claims 68 to 70, wherein the stress condition is an osmotic stress condition, and wherein the regulatory comprises a nucleotide sequence as set forth in any of SEQ ID NOS:5108-5263.

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- 75. The method of any of claims 68 to 70, wherein the combination of stress conditions is cold stress and osmotic stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NO. 4389-4654.
- 76. The method of any of claim 68 to 70, wherein the combination of stress conditions is a cold stress and an osmotic stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.
 - 77. The method of any of claims 68 to 70, wherein the combination of stress condition is a cold stress and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:4655-5909.
 - 78. The method of any of claims 68 to 70, wherein the combination of stress conditions is an osmotic stress and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:5264-5379.

79. The method of any of claims 68 to 70, wherein the combination of stress conditions is a cold stress, an osmotic stress, and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:3956-4388.

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- 80. The method of any of claims 68 to 70, wherein the combination of stress conditions is a cold stress, an osmotic stress, and a saline stress, and wherein the regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.
- 81. The method of any of claims 68 to 30, wherein the detectable marker is visibly detectable.
- 15 82. The method of any of claims 68 to 80, wherein said detectable marker comprises a luminescent detectable marker.
 - 83. The method of any of claims 68 to 80, wherein said detectable marker comprises a fluorescent detectable marker.

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84. The method of claim 83, wherein said fluorescent detectable marker comprises a green fluorescent protein, a yellow fluorescent protein, a cyan fluorescent protein, a red fluorescent protein, or an enhanced or modified form thereof.

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- 85. A method of selecting a plant having an altered resistance to an abiotic stress condition or a combination of abiotic stress conditions, the method comprising:
 - a) contacting nucleic acid molecules representative of expressed polynucleotides in a plant cell of a plant to be examined for having an altered resistance to an abiotic stress with a nucleic acid probes that selectively hybridizes under stringent conditions to a plant stress-regulated gene comprising a nucleotide sequence as set forth in any of SEQ ID NO:1-5379;

565

b) detecting a level of selective hybridization of the nucleic acid probes to a nucleic acid molecule representative of an expressed polynucleotide in the plant cell, wherein the level of selective hybridization corresponds to the level of the expressed polynucleotide in the plant cell, which is indicative of resistance of the plant to an abiotic stress; and

- c) selecting a plant having a level of expression of a polynucleotide indicative of altered resistance to an abiotic stress condition.
- 86. The method of claim 85, wherein the abiotic stress condition is cold stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-1261 and 2704-3955.

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- 87. The method of claim 85, wherein the abiotic stress condition is cold stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1261, 2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, and 3313-3955.
- 88. The method of claim 85, wherein the abiotic stress condition is saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2226-2427 and 4910-5107.
- 89. The method of claim 35, wherein the abiotic stress condition is osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2428-2535 and 5108-5263.
 - 90. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1669-1969 and 4389-4654.

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- 91. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and osmotic stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1699-1725, 1727-1865, 1867-1917, 1919-1927, 1929-1969, 4389-4414, 4416-4552, 4554-4602, 4604-4612, and 4613-4654.
- 92. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1970-2226 and 4655-4909.
- 93. The method of claim 35, wherein the combination of abiotic stress conditions is a combination of osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:2586-2703 and 5264-5379.
- 94. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1262-1698 and 3956-4388.
- 95. The method of claim 85, wherein the combination of abiotic stress conditions is a combination of cold stress, osmotic stress and saline stress, and wherein the nucleic acid probe comprises at least about 15 nucleotides of a nucleotide sequence as set forth in any of SEQ ID NOS:1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1698, 3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, and 4326-4388.

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96. A method of modulating the responsiveness of a plant cell to a stress condition, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, wherein said gene comprises a nucleotide sequence of a polynucleotide as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379, thereby modulating the responsiveness of the plant cell to a stress condition.

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97. The method of claim 96, wherein the responsiveness of the plant cell is increased upon exposure to the stress condition.

98. The method of claim 97, wherein increased responsiveness of the plant cell increases the stress tolerance of the plant cell to the stress condition.

- 99. The method of claim 96, wherein the responsiveness of the plant cell is decreased upon exposure to the stress condition.
 - 100. The method of claim 99, wherein decreased responsiveness of the plant cell increases the stress tolerance of the plant cell to the stress condition.
- 101. The method of claim 96, wherein the polynucleotide portion of the plant stress-regulated gene integrates into the genome of the plant cell, thereby modulating the responsiveness of the plant cell to the stress condition.
- 102. The method of claim 96, wherein the polynucleotide portion of the plant 30 stress-regulated gene encodes a stress-regulated polypeptide or functional peptide portion thereof.

568

103. The method of claim 102, wherein the stress-regulated polypeptide or functional peptide portion thereof increases the responsiveness of the plant cell to the stress condition.

- 5 104. The method of claim 102, wherein the polynucleotide portion of the plant stress-regulated gene is operatively linked to a heterologous promoter.
 - 105. The method of claim 102, wherein the polynucleotide portion of the plant stress-regulated gene contains a mutation, whereby upon integrating into the plant cell genome, the polynucleotide disrupts an endogenous plant stress-regulated gene, thereby modulating the responsiveness of said plant cell to the stress condition.
 - 106. The method of claim 105, wherein the endogenous plant stress-regulated gene encodes a maladaptive stress-regulated polypeptide, and wherein said plant cell exhibits increased tolerance to the stress condition.
 - 107. The method of claim 96, wherein the polynucleotide portion of the plant stress-regulated gene comprises a stress-regulated gene regulatory element.
- 108. The method of claim 107, wherein, the regulatory element is operatively linked to a heterologous nucleotide sequence, which, upon expression from the regulatory element in response to a stress condition, modulates the responsiveness of the plant cell to the stress condition.
- 25 109. The method of claim 108, wherein the heterologous nucleotide sequence encodes a stress-inducible transcription factor.
 - 110. The method of claim 109, wherein the transcription factor is DREB1A.

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111. The method of claim 108, wherein the heterologous nucleotide sequence encodes a polynucleotide specific for a plant stress-regulated gene, said polynucleotide selected from the group consisting of an antisense molecule, a ribozyme, and a triplexing agent, which, upon expression in the plant cell, reduces or inhibits expression of a stress-regulated polypeptide encoded by the gene, thereby modulating the responsiveness of the plant cell to a stress condition.

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112. The method of claim 108, wherein the heterologous nucleotide sequence encodes a recombinant polypeptide comprising a zinc finger domain and a transcription effector domain.

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- 113. The method of claim 112, wherein the transcription effector domain is a transcription activator domain.
- 114. The method of claim 96, wherein the stress condition is cold stress, osmotic stress, saline stress, or a combination thereof.
- cell, the method comprising introducing into the plant cell a plant stress-regulated regulatory element operatively linked to the heterologous nucleotide sequence, wherein said regulatory element comprises a nucleotide sequence as set forth in any of SEQ ID NOS:2704-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379, whereby, upon exposure of the plant cell to stress condition, the heterologous nucleotide sequence is expressed in the plant cell.
- 116. The method of claim 117, wherein the heterologous nucleotide sequence encodes a selectable marker.
- 117. The method of claim 117, wherein the heterologous nucleotide sequence encodes a polypeptide that improves the nutritional value of the plant cell.

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118. The method of claim 117, wherein the heterologous nucleotide sequence encodes a polypeptide that improves the ornamental value of the plant cell.

- 119. A method of modulating the activity of a biological pathway in a plant cell involving a plant stress-regulated polypeptide, the method comprising introducing a polynucleotide portion of a plant stress-regulated gene into the plant cell, wherein the plant stress-regulated gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 10 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379, thereby modulating the activity of the biological pathway. 15
 - 120. A plant cell obtained by any of claims 96 to 121.
 - 121. A plant comprising the plant cell of claim 122.

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- 122. A method of identifying a polynucleotide that modulates a stress response in a plant cell, the methods comprising:
 - a) contacting an array of probes representative of a plant cell genome and nucleic acid molecules expressed in plant cell exposed to the stress;

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- b) detecting a nucleic acid molecule that is expressed at a level different from a level of expression in the absence of the stress;
- c) introducing the nucleic acid molecule of step b) into a plant cell; and
- d) detecting a modulated response of the plant cell of step c) to a stress, thereby identifying a polynucleotide that modulates a stress response in a plant cell.

PCT/US2001/026685

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- 123. The method of claim 124, wherein the stress is an abiotic stress.
- 124. The method of claim 125, wherein the abiotic stress is selected from the group consisting of an abnormal level of cold, osmotic pressure, and salinity.
- 125. The method of claim 124, wherein expression of the nucleic acid molecule increases the tolerance of the plant cell to the stress.
- 126. The method of claim 124, wherein, in step b), the nucleic acid molecule is expressed at a level that is less than the level of expression in the absence of the stress.
- 127. A transgenic plant, which contains a transgene comprising a polynucleotide portion of plant stress-regulated gene, wherein the gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379.
 - 128. The transgenic plant of claim 129, wherein the transgenic plant exhibits altered responsiveness to a stress condition as compared to a corresponding wild-type plant.
 - 129. The transgenic plant of claim 130, wherein the transgene disrupts an endogenous stress-regulated gene in the plant, thereby reducing or inhibiting expression of the gene in response to a stress condition.
 - 130. The transgenic plant of claim 130, wherein the plant exhibits increased tolerance to a stress condition.

- 131. The transgenic plant of claim 130, wherein the plant exhibits decreased tolerance to a stress condition.
- 5 132. The transgenic plant of any of claims 129 to 133, wherein the transgene comprises a coding sequence of a plant stress-regulated gene.
 - 133. The transgenic plant of claim 134, wherein the coding sequence is operatively linked to a heterologous regulatory element.

134. The transgenic plant of claim 135, wherein the regulatory element is a constitutively active regulatory element.

- 135. The transgenic plant of claim 135, wherein the regulatory element is an regulated regulatory element.
 - 136. The transgenic plant of claim 135, wherein the regulatory element is a tissue specific or phase specific regulatory element.
- 20 137. The transgenic plant of any of claims 129 to 131, wherein the transgene comprises a plant stress-regulated regulatory element operatively linked to a heterologous nucleotide sequence.
- 138. The transgenic plant of claim 139, wherein the transgenic plant expresses a polypeptide encoded by the heterologous nucleotide sequence.
 - 139. The transgenic plant of claim 140, wherein the polypeptide improves the nutritional value or ornamental value of the plant.
- 30 140. The transgenic plant of any of claims 129 to 141, wherein the plant comprises multiple transgenes.

- 141. The transgenic plant of claim 142, wherein the multiple transgenes comprise multiple copies of the same transgene or comprise two or more different transgenes.
- 142. A plant stress-regulated gene regulatory element, wherein the gene comprises a nucleotide sequence as set forth in any of SEQ ID NOS:1-155, 157-228, 230-232, 234-557, 559-572, 574-605, 607-634, 636-786, 788-812, 814-1262, 1264-1386, 1387-1390, 1392-1404, 1406-1444, 1446-1483, 1485-1588, 1590-1608, 1610-1633, 1634-1725, 1727-1865, 1867-1917, 1919-1927, 1929-2855, 2857-2928, 2930-2932, 2934-3256, 3258-3271, 3273-3304, 3306-3323, 3325-3333, 3335-3485, 3487-3511, 3313-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279, 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, and 4604-5379.
- 143. The plant stress-regulated gene regulatory element of claim 144,

 15 comprising a nucleotide sequence as set forth in any of SEQ ID NOS: 2704-2855,

 2857-2928, 2930-2932, 2934-3256, 3258-3304, 3306-3323, 3325-3333, 3335-3485,

 3487-3511, 3513-3956, 3958-4078, 4080-4097, 4099-4136, 4138-4175, 4177-4279,,

 4281-4299, 4301-4324, 4326-4414, 4416-4552, 4554-4602, 4604-4612, and 4614
 5379, or a nucleotide sequence substantially similar thereto.

- 144. A method of identifying an agent that modulates the activity of the plant stress-regulated regulatory element of claim 144 or claim 145, the method comprising:
 - a) contacting the regulatory element with an agent suspected of having the ability to modulate the activity of the regulatory element; and
 - b) detecting a change in the activity of the regulatory element, thereby identifying an agent that modulates the activity of the plant stress-regulated regulatory element.
- 145. The method of claim 146, wherein the regulatory element can beoperatively linked to a heterologous nucleotide sequence.

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- 146. The method of claim 147, wherein the heterologous nucleotide sequence encodes a reporter molecule.
- 147. The method of any of claims 146 to 148, which is in vitro in a plant cellfree system, in a plant cell in culture, or in a plant in situ.
 - 148. The method of claim 149, wherein the plant is a transgenic plant, into which the plant stress-regulated regulatory element has been introduced.
- 10 149. The method of any of claims 146 to 150, wherein the agent is a stress mimic.
 - 150. A method of modulating a stress-regulated response in a plant cell, the method comprising expressing in the plant cell a recombinant polypeptide that interacts specifically with a plant stress-regulated regulatory element of claim 144 or claim 145, thereby modulating a stress-regulated response in the plant.
 - 151. The method of claim 152, wherein the recombinant polypeptide comprises a zinc finger domain, which specifically interacts with the stress-regulated regulatory element, and a transcription effector domain, which effects expression of the regulatory element.
 - 152. The method of claim 153, wherein the effector domain is a transcription activation domain.
 - 153. The method of claim 153, wherein the effector domain is a transcription repressor domain.

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- 154. A method for identifying a polynucleotide involved in a stress response of a plant, the method comprising:
 - a) contacting nucleic acid molecules representative of expressed polynucleotides in plant cells of a plant exposed to a stress condition or combination of stress conditions with an array of probes representative of the plant cell genome; and
 - b) detecting a nucleic acid molecule that exhibits at least a two-fold change in the level of expression as compared to the level of the nucleic acid molecule in a corresponding plant cell of a plant that was not exposed to the stress condition, thereby identifying a polynucleotide involved in a stress response of the plant.
- 155. The method of claim 156, comprising identifying a plurality of polynucleotides involved in the stress response in the plant.
- 156. The method of claim 156 or 157, further comprising isolating the polynucleotide or plurality of polynucleotides.
- 157. A computer readable medium having stored thereon computer20 executable instructions for performing a method comprising:
 - a) receiving data on expression in a cell of a plant of a nucleic acid molecule having at least 70% sequence identity to a nucleotide sequence comprising any of SEQ ID NO. 1-5379; and
 - b) comparing the data on expression of the nucleic acid molecule with data on expression of the nucleic acid in a cell of a plant that has not been exposed to an abiotic stress, of a plant that has been exposed to an abiotic stress condition or combination of abiotic stress conditions, or of a combination of such plants.

158. The computer readable medium of claim 159, wherein the nucleic acid molecule comprises one of a plurality of nucleic acid molecules, and wherein the computer executable instructions are capable performing receiving and comparing of any or all of the plurality of nucleic acid molecules.

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159. A computer-readable medium having stored thereon a data structure comprising:

sequence data for at least one nucleic acid molecule having at least 70% nucleic acid sequence identity to a polynucleotide having a nucleotide sequence as set forth in any of SEQ ID NO. 1-5379 or a nucleotide sequence complementary thereto; and

a module receiving the nucleic acid molecule sequence data, which compares the nucleic acid molecule sequence data to a least one other nucleic acid sequence.

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al Application No PCT/US 01/26685

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12N15/82 C12Q1/68

A01H5/00

G06F17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\label{eq:minimum} \begin{array}{ll} \textit{Minimum documentation searched} \ \, \text{(classification system followed by classification symbols)} \\ IPC \ 7 \ C12N \ C12Q \ A01H \ G06F \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, MEDLINE, CAB Data, SEQUENCE SEARCH

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	REYMOND P ET AL: "Differential gene expression in response to mechanical wounding and insect feeding in Arabidopsis." PLANT CELL, vol. 12, no. 5, May 2000 (2000-05), pages 707-719, XP002216347 ISSN: 1040-4651 the whole document	1-4, 16-18, 42, 57-70, 81-84, 96-108, 111,114, 124-128, 156-158
A	WO 00 08187 A (VERBRUGGEN NATHALIE ;VLAAMS INTERUNIV INST BIOTECH (BE); LEE JEONG) 17 February 2000 (2000-02-17) the whole document	

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
"Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filling date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	 "I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to inventive an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
10 October 2002	18. 12. 2002
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Oderwald, H

In paral Application No PCT/US 01/26685

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NUCCIO M L ET AL: "Metabolic engineering of plants for osmotic stress resistance." CURRENT OPINION IN PLANT BIOLOGY. UNITED STATES APR 1999, vol. 2, no. 2, April 1999 (1999-04), pages 128-134, XP002216348 ISSN: 1369-5266 the whole document	
A	RUAN Y ET AL: "TOWARDS ARABIDOPSIS GENOME ANALYSIS: MONITORING EXPRESSION PROFILESOF 1400 GENES USING CDNA MICROARRAYS" PLANT JOURNAL, BLACKWELL SCIENTIFIC PUBLICATIONS, OXFORD, GB, vol. 15, no. 6, September 1998 (1998-09), pages 821-833, XP000960486 ISSN: 0960-7412 the whole document	
A	SCHENA M ET AL: "QUANTITATIVE MONITORING OF GENE EXPRESSION PATTERNS WITH A COMPLEMENTARY DNAMICROARRAY" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 270, no. 5235, 20 October 1995 (1995-10-20), pages 467-470, XP000644675 ISSN: 0036-8075 the whole document	
P,X	SEKI M ET AL: "Monitoring the expression pattern of 1300 Arabidopsis genes under drought and cold stresses by using a full-length cDNA microarray." PLANT CELL, vol. 13, no. 1, January 2001 (2001-01), pages 61-72, XP002216349 ISSN: 1040-4651 the whole document	1-4, 16-18, 42, 57-70, 81-84, 124-128, 156-158
P _s X	SCHENK P M ET AL: "Coordinated plant defense responses in Arabidopsis revealed by microarray analysis." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 97, no. 21, 10 October 2000 (2000-10-10), pages 11655-11660, XP002216350 October 10, 2000 ISSN: 0027-8424 the whole document	1,2,4, 16-18, 42, 57-60, 63-68, 81-84, 124,127, 128, 156-158

International Application No
PCT/US 01/26685

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Category Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Category Citation of document, with indication, where appropriate, of the relevant passages	TOO TOTAL TO CALLET THE
EP 1 033 405 A (CERES INC) 6 September 2000 (2000-09-06)	42,43, 57-70, 81-87, 96-108, 111,114, 121-123, 129-144, 146-151, 159-161
see SEQ ID NO: 38097 page 1 -page 26; claims 1-34 page 89 -page 90 page 318 page 322	
page 322	
·	·

International application No. PCT/US 01/26685

i	Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
	This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
	1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
	2. X	Claims Nos.: 152-155 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: See FURTHER INFORMATION sheet PCT/ISA/210
	з. [Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
-	Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
-	This Inte	emational Searching Authority found multiple inventions in this international application, as follows:
		see additional sheet
	1.	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
	2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
	з. 🗀	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
	4. X	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: claims 1-6, 16-19, 22, 34, 40, 42, 43, 57-70, 81-87, 96-114, 121-144, 146-151, 156-161 all partially
The state of the s	Remark	The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims: 1-6,16-19,22,34,40,42,43, 57-70, 81-87,96-114,121-144,146-151, 156-161 all partially

A method of identifying a stress condition to which a plant cell has been exposed comprising a polynucleotide with SEQ ID NO: 1. A method for determining whether a test plant has been exposed to an abiotic stress, a method of producing a transgenic plant, a transgenic plant, a plant, a plant cell, a seed, a cDNA or genomic library, a method for monitoring a population of plants, a method of selecting a plant having an altered resistance to an abiotic stress condition, a method of modulating the responsiveness of a plant cell to a stress condition, a method of modulating the activity of a biological pathway in a plant cell, a method of identifying a polynucleotide that modulates a stress response in a plant cell, a plant stress-regulated gene regulatory element, a method of identifying an agent that modulates the activity of a plant stress-regulated element, a method for identifying a polynucleotide involved in a stress response of a plant, a computer readable medium having stored thereon computer executable instructions or a data structure comprising said polynucleotide.

Invention 2-5379: claims 1-151, 156-161 insofar as applicable; all partially

same as invention 2 but comprising a polynucleotide sequence in the order as given in the claims (invention 2 is limited to SEQ ID NO: 2 and invention 5379 is limited to SEQ ID NO: 5379).

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 152-155

Present claims 152-155 relate a product/compound defined by reference to a desirable characteristic or property, namely a polypeptide that interacts with a plant stress-regulated regulatory element. The claims cover all products/compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products/compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product/compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

Information on patent ramuy members

PCT/US 01/26685

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0008187	A	17-02-2000	AU CA WO EP JP	5419799 A 2336227 A1 0008187 A2 1100940 A2 2002524052 T	28-02-2000 17-02-2000 17-02-2000 23-05-2001 06-08-2002
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